(54) Title: POST-TRADE, PRE-SETTLEMENT INFORMATION MATCHING FOR SECURITIES TRANSACTIONS
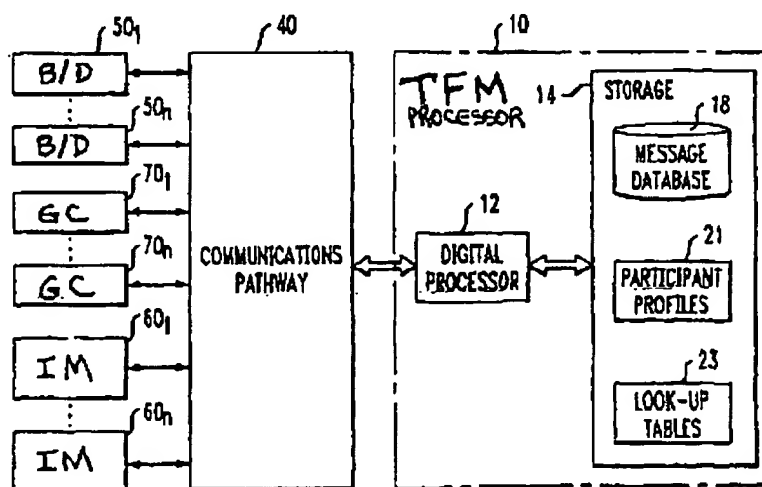
(57) Abstract: Systems and methods for facilitating settlement of a securities transaction. A communications mechanism is adapted to accept incoming electronic messages related to the securities transaction. A processing mechanism, coupled to the communications mechanism, determines compatibility between any two or more incoming electronic messages. The processing mechanism transmits an indication message over the communications mechanism that specifies at least one of: (i) compatibility between any two or more incoming electronic messages; and (ii) incompatibility between any two or more incoming electronic messages.

POST-TRADE, PRE-SETTLEMENT INFORMATION MATCHING FOR SECURITIES TRANSACTIONS

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BACKGROUND OF THE INVENTION

1. Field of the Invention:

This invention relates generally to financial data processing and, more
10 particularly, to systems and methods for facilitating settlement of securities
transactions.

2. Background Art:

Securities transactions which transcend national boundaries are an
15 important and increasing component of worldwide finance. Securities issuers,
custodians, fiduciaries, buyers, sellers and their representatives, and others
involved in any particular securities transaction can be located virtually
anywhere.

International, cross-border securities trades fail and are not completed
20 (*i.e.*, do not "settle") far more frequently than trades taking place within a given
country -- and far more often than is desirable to satisfy financial assurance and
liquidity objectives. Causes of cross-border trade failure are varied, and
include incompatible views of the parties as to bargain specifics, as well as
incompatible assumptions and practices regarding settlement mechanics and
25 timing. Beyond impeding investment liquidity, presently-utilized settlement
procedures are burdensome and case-dependent, significantly adding to the
expense and complexity of completing a trade.

International securities transactions typically involve institutional
principals (mutual funds, banks, pension funds as representative) rather than
30 retail (individual) participants. An agent, such as a Broker/Dealer (B/D) and/or
an Investment Manager (IM), acts for the ultimate buying and selling entities.
Securities holdings are most often identified as a book entry in the computer

records of a custodian which either itself, or via a further custodian, holds the underlying securities in its own or a nominee's name. Settlement of an international security transaction typically requires "delivery" via appropriate book entry adjustments and physical delivery of the security involving at least

5   one and typically often more than one Global Custodian (GC) or Sub-Custodian.

In some instances, cross-border trades may not involve an exchange (*e.g.*, the New York Stock Exchange, the London Stock Exchange, the Paris Bourse), whereupon the accompanying exchange-mandated settlement

10   procedures and member firm settlement assurances are no longer applicable. Cross-border trades which do not utilize an exchange are essentially bargains directly or indirectly negotiated between an IM (Investment Manager), B/D (Broker/Dealer), or the like, where each party to the trade issues the respective confirmatory notices and settlement instructions.

15   In the United States, two centralized security settlement forums are the Depository Trust Clearing Corporation (DTCC) and the Government Securities Clearing Corporation (GSCC). Specialized clearing agencies exist for international securities as, for example, the International Securities Clearing Corporation (ISCC). The ISCC is a US-based international clearing agency

20   registered with the Securities and Exchange Commission (SEC) to provide clearance, settlement, and information services to participants trading in overseas markets.

Cross-border securities transactions typically involve multiple tiers of intermediary parties, and many investors may be unaware of the existence of

25   some or all of these intermediaries. Managing the inherent risks of a cross-border securities transaction becomes increasingly difficult as the number of tiers increases. As the security instrument is transferred from one intermediary to another, each intermediary in the chain effects the transfer in the form of a book-keeping entry. Typically, the investor does not receive any

30   piece of paper evidencing ownership in such a security, and must rely upon a

2

series of bookkeeping records to establish his interest in the security.

As noted above, much can (and too often does) go wrong during the post trade, pre-settlement phase of a securities transaction. Misunderstandings related to the terms of the bargain are overlooked (at least initially) in crossed

5   messages. Parties can have different expectations as to applicable costs, taxes, risk apportionment, and the priority and sequence of performance. "Delivery" between GC's (Global Custodians) may not occur (or not be achievable in the requisite timing) for lack of needed information about the transaction and/or a lack of compatibility between the information exchanged between or among

10   the parties.

As a consequence of the foregoing factors the costs and risks of successfully completing cross-border securities transactions is increased. Even if the deal is not successfully completed, the parties are typically burdened with various transactional expenses (e.g., repair costs and fail financing). Moreover,

15   present cross-border trading is not readily amenable to next day settlement ("T+1"), which is the desideratum of all capital markets so as to promote liquidity and to reduce risk.

SUMMARY OF THE INVENTION:

One object of the invention is to accelerate the flow of information between parties participating in a cross-border securities transaction so as to decrease the length of a trade settlement cycle to as short as possible,

5   preferably no greater than the next business day after trade (T+1).

A further object of the invention is to reduce cross-border trade failures by providing accurate, "just-in-time" information to all parties participating in a cross-border securities transaction.

Another object of the invention is to facilitate cross-border trades by

10   providing the parties with the relevant parameters of the transaction, and/or information about these parameters, and providing data about these parameters as the data become available.

Yet another object of the invention is to provide a system for implementing, contemporaneously, a plurality of cross-border transactions and

15   determining which incoming information pertains to which transaction.

In summary, a timely, efficient, cross-border securities transaction is facilitated by using a communications mechanism and a processing mechanism to assess the compatibility of incoming information related to a securities transaction, and to provide one or more notification messages indicative of

20   information compatibility. More specifically, the communications mechanism receives incoming electronic messages setting forth one or more parameter values related to a securities transaction. These messages may be received in the form of Notices of Execution (NOE's) and/or Block Order Notifications (BON's). Incoming messages may also specify settlement instructions and/or

25   settlement details. Messages are received from a plurality of parties to the transaction, including an Investment Manager (IM), a Broker/Dealer (B/D), and one or more global custodians (GC's). A processing mechanism, coupled to the communications mechanism, first determines which messages of a plurality of incoming messages pertains to a given securities transaction. After

30   identifying two or more messages that pertain to a given securities transaction,

the processing mechanism tests for matches between one or more parameter
values of these two or more messages. The processing mechanism transmits a
message over the communications mechanism specifying at least one of: (i)
the existence of matches between one or more parameter values of any two or
5   more incoming electronic messages; and (ii) the non-existence of matches
between one or more parameter values of any two or more incoming electronic
messages.

According to one preferred embodiment of the invention, received
incoming messages specify any of the following exemplary parameters: (1) a
10   total quantity and value allocation for the securities transaction; (2) a block
trade amount for the securities transaction; (3) net proceeds expected by that
party from the securities transaction; (4) maximum acceptable deviation from
the net proceeds of the securities transaction that a party will accept; and
(5) settlement location and/or venue. However, the maximum acceptable
15   deviation need not be received in the form of an incoming message, and could
be specified in the form of a profile that is pre-stored in electronic memory.
The parameters may include one or more mandatory parameters and/or one or
more tolerance-based parameters. If the securities transaction is to settle, the
mandatory parameters of all messages pertaining to a given securities
20   transaction should match identically. However, the tolerance-based
parameters of all messages pertaining to a given securities transaction need
only match within a prespecified tolerance in order to permit settlement of the
securities transaction. Each of respective tolerance-based parameters may be
assigned a corresponding prespecified acceptable tolerance limit. The
25   incoming messages may include one or more NOE (Notice of Execution)
messages received from one or more Broker/Dealers (B/D's), and/or one or
more BON (Block Order Notification) messages received from one or more
Investment Managers (IM's).

At a plurality of times during the post-trade, pre-settlement phase of a
30   securities transaction, the processing mechanism determines whether two or

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more received messages pertain to a given securities transaction and, if so, the processing mechanism subjects this data to the above-described matching process. The processing mechanism may optionally be equipped with a translation mechanism by which a first security identification code specified

5   according to a first security numbering agency is translated into a second security identification code for the same security, as specified according to a second security numbering agency. If the processing mechanism determines that all mandatory parameters for a given securities transaction match exactly, and that all tolerance-based parameters are within the corresponding

10   prespecified acceptable tolerance limit, the transaction is considered to be matched. Once the transaction is matched, the processing mechanism forwards the transaction to the local market for settlement, and/or forwards the transaction to the B/D or GC for subsequent forwarding to the local market. The processing mechanism sends a message to all parties to the transaction

15   notifying them of the final terms of the bargain.

The matching process is adapted to determine compatibility between two or more incoming messages. If these incoming messages are compatible, a securities transaction may be consummated, whereas if they are incompatible, a securities transaction may not be consummated. The notion of compatibility

20   is dependent upon the parameter in question. Some messages include parameters which must exactly match corresponding parameters in other messages pertaining to the same transaction. For example, the identity of the security to be traded must match exactly; otherwise the transaction will not be consummated. However, other messages include parameters which need only

25   fall within a specified tolerance of corresponding parameters in other messages, so as to enable consummation of the transaction. For example, a first message may indicate that net proceeds are $10,000, whereas a second message may indicate that net proceeds are $12,000. However, if the specified tolerance is $5,000, the messages are compatible, and the transaction may be consummated.

30   By way of further variation, a first message may indicate that the transaction

6

must be settled in Hamburg, whereas a second message may indicate that the transaction could be settled in Cannes, Hamburg, Cairo, or New Delhi. These messages are compatible, because the transaction could be consummated in Hamburg.

5   Pursuant to a further embodiment of the invention, a "just-in-time" data enrichment process is utilized wherein the processing mechanism receives settlement details from one or more parties to the transaction at the time that these details are needed for matching purposes. In contrast to existing processes that rely on standing, preloaded instruction databases, the "just-in-

10   time" data enrichment process receives current and specific settlement details from the GC and the B/D. The "just-in-time" process obtains data from the source (the GC and/or the B/D), when this information is needed, so as to ensure that accurate, up-to-date, and relevant settlement details are exchanged between the GC and the BD. In this manner, the probability that a given

15   securities transaction will be settled is greatly enhanced.

BRIEF DESCRIPTION OF THE DRAWINGS:

        FIG. 1 is a hardware block diagram showing an illustrative operational environment for the present invention.

20   FIGs. 2A-2F together comprise a flowchart setting forth an operational sequence performed by a preferred embodiment of the invention.

        FIG. 3 is a table setting forth a list of abbreviations and/or acronyms which are used throughout the specification.

        FIGs. 4A-4L are an illustrative data structure diagram that describes the

25   informational content of messages received by the TFM processor of FIG. 1.

        FIGs. 5A and 5B together comprise a data structure diagram setting forth data fields that are used by the TFM for matching purposes

        FIG. 6 is an information flow diagram for a Fund-to-Fund trade.

        FIG. 7 is an information flow diagram for a first illustrative Allocations

30   Matching Process.

FIG. 8 is an information flow diagram for a second illustrative Allocations Matching Process.

FIG. 9 is an information flow diagram showing illustrative message transfers for the Allocations Matching Process.

FIGs. 10A-10F together comprise a data structure diagram setting forth information provided by the IM to the TFM processor as part of an Allocation Message.

FIG. 11 is a data structure diagram setting forth input and the output messages utilized during the Allocations Matching Process.

FIG. 12 is an information flow diagram illustrating "step out" trades from the perspective of a "stepping-in" B/D.

FIG. 13 is a diagram illustrating the flow of information during the Allocations Matching Process.

FIG. 14 is a chart that provides a comparison between an Allocations Matching Process where the TFM processor has received all required information and an Allocations Matching Process where some information is incomplete.

FIG. 15 is an information flow diagram depicting the Allocations Matching Process for fund-to-fund trades.

FIGs. 16A-16E together comprise a data structure diagram showing illustrative data fields utilized by the TFM processor during a Net Proceeds Matching Process.

FIG. 17 is a Prevailing User Tolerance Decision Table used by the TFM processor to determine the type of tolerance to be applied so as to match Net Proceeds within a user-specified tolerance.

FIG. 18 is a Prevailing Amount Decision Table used by the TFM processor to determine the prevailing amount of the trade and the match status for various user tolerance match results.

FIG. 19 is a flowchart setting forth an operational sequence for implementing the Net Proceeds Matching Process.

FIGs. 20-39 are tables setting forth various illustrative results for the Net Proceeds matching process of FIG. 19.

FIG. 40 is a diagram illustrating information flow for a Settlement Channel Compatibility Determination Process.

5   FIGs. 41A-41E together comprise a data structure diagram setting forth various illustrative data fields used to implement the Settlement Channel Compatibility Determination Process.

FIGs. 42A-42E together comprise a data structure diagram setting forth various illustrative data fields used to implement a Foreign Exchange (Forex)

10   Settlement Process.

FIGs. 43 and 44 illustrate information flow for a Trade Cancellation Process.

FIGs. 45 and 46 illustrate information flow for a Trade Cancellation Process where a received NOE or BON message contains an erroneous value.

15   FIGs. 47 and 48 illustrate information flow for a Trade Details Replacement Process wherein one or more new trade parameter values are substituted in place of previously submitted parameter values.

FIG. 49 is a Currency Code data structure for storing currency-related information.

20   FIG. 50 is a Country Code data structure for storing information related to a proposed settlement location.

FIG. 51 is an Instrument Type data structure for maintaining numbering agency codes for securities according to instrument type and country of issue.

FIG. 52 is a Settlement Location data structure for storing details related

25   to each of a plurality of potential settlement locations.

FIG. 53 is a Settlement Bridges data structure for storing information related to the existence of "bridges" (preexisting settlement protocol arrangements) between two or more.potential settlement locations.

FIG. 54 is a BIC (Bank Identifier Code) data structure for storing

30   information related to one or more financial institutions.

FIG. 55 is a Roles Profile Table describing the functions to be performed by each of a plurality of entities such as B/Ds, IMs, and GCs.

FIG. 56 sets forth an illustrative data structure for a Participant Identification Table.

5   FIG. 57. sets forth an illustrative data structure for a Participant Address Table.

FIG. 58 sets forth an illustrative data structure for a Participant Roles Table.

FIG. 59 sets forth an illustrative data structure for a Participant Access
10   Module Identification Table.

FIG. 60 is an information flow diagram illustrating the relationship between Participants, BICs, Participant Access Modules, the TFM processor and the Access Concentrators.

FIG. 61 is a Transaction Notification Table that stores details
15   maintained by the participant.

FIGs. 62 and 63 are Substitution Profile Tables that store the identification of a substitute who will be submitting transaction parameters.

FIG. 64 is an IM Client Profile Table that illustrates the profiles maintained by the IM for its Clients.

20   FIG. 65   comprises   an Accounting Agent Profile Table that illustrates the profiles maintained by the Accounting Agent for its Clients.

FIG. 66 is a Matching Tolerance Table that illustrates matching tolerance at a Block Gross Amount level.

25   FIG. 67 sets forth the data structure of a Trade Statistics Table.

FIG. 68 sets forth the data structure of a Message Statistics Table.

FIG. 69 sets forth the data structure of a Matching Efficiency Table.

FIG. 70 sets forth the data structure of a Geographical Characteristics of Usage Table.

FIG. 71 sets forth the data structure of an Instrument Type Table.

FIG. 72 sets forth the data structure of a Type of Service Table.

FIG. 73 sets forth the data structure of a Standards Compliance Table.

FIG. 74 sets forth the data structure of a Reference Number Table.

5   FIG. 75 sets forth a data structure by which any of a plurality of

Message States may be specified in conjunction with the TFM processor.

FIG. 76 sets forth the data structure of Output Messages as utilized in

conjunction with the TFM processor.

10   FIG. 77 sets forth   the data structure of a Message Types

Table.

FIGs. 78, 78A and B set forth the data structure for a

Block Trade States Table.

FIGs. 79A- 79T together comprise a data structure diagram setting forth

15   various data fields that are utilized by the TFM processor of FIG. 1.

FIGs. 80A-80G together comprise a data structure diagram that

describes input message field elements.

FIGs. 81A-81I and 82A-82C are data structure diagrams that group field

elements by input messages.

20   FIGs. 83A and 83B together comprise a Block Trade Details data structure

diagram.

FIG. 84   is a data structure diagram for output messages.

FIG. 85 is a data structure diagram showing input messages for allocat

ons.

25   FIGs. 86A and B together comprise a data structure diagram showing

output messages for the above-described allocations process.

FIG. 87 is a data structure diagram showing input messages for the

above-described Net Proceeds process,

FIGs. 88A and B together comprise a data structure diagram showing

30   output messages for the Net Proceeds process.

FIG. 89 is a data structure diagram showing output messages related to Accounting Details.

FIG. 90 is a data structure diagram showing input messages involving Settlement Details.

5   FIGs. 91A and 91B together comprise a data structure diagram showing output messages involving Settlement Details.

FIG. 92 is an information flow diagram for a Fund-to-Fund Trade.

FIG. 93 is an information flow diagram for Sell-Side and Buy-Side Allocations and Notifications.

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DETAILED DESCRIPTION OF THE PREFERRED
EMBODIMENTS

5   Post-trade, pre-settlement information matching for a securities
transaction is facilitated by providing multilateral communications between
parties during the post-trade, pre-settlement phase of the transaction.
Typically, the parties include an Investment Manager (IM), a Broker/Dealer
(B/D), and one or more Global Custodian(s) (GCs). Although these terms are
10   well-understood by those skilled in the art of electronically-facilitated
securities transactions, they are briefly defined herein for the convenience of
the reader. GC's are entities which hold the physical certificate(s) evidencing
ownership of a security for the benefit of third parties; for purposes of this
invention, a GC holds the security of the seller(s) and, after the transaction is
15   consummated, the buyer(s) may have a different custodian to which the
physical security is transferred. IM's are charged with the responsibility of
managing an investment portfolio which may include domestically-issued, as
well as foreign-issued, security instruments. A B/D acts as an interface or
liaison between entities that wish to buy and/or sell securities instruments.
20   Depending upon the particular parties on a side of a given securities
transaction, any party could be conceptualized as a "seller" of a securities
instrument, with any one or more of the remaining "non-selling" parties
functioning as a "buyer" of the securities instrument. While the present system
can be used to match trading information for anything from stocks to stock
25   cars, as used herein, the term "securities" includes any type of intangible asset,
such as stocks, bonds, options, derivatives of any kind, dematerialized issues,
and the like.

          In the environment of a typical exchange, such as the New York Stock
Exchange, NASDAQ, the London Stock Exchange, or the Paris Bourse,
30   transactions are typically handled between B/Ds or specialists. For example,

13

an institutional investor's IM at a brokerage desiring to purchase 10,000 shares
of XYZ Company places an order for these shares. The order is received by a
B/D who then finds another B/D who wishes to sell essentially the same
quantity of shares. The two B/Ds then consummate the transaction. If there is

5   a miscommunication between the B/Ds as to price or quantity (for example),
the buyer and seller are each insulated from this problem by the rules of the
exchange; *e.g.*, if the buyer only wanted to purchase 1,000 shares and the
buying broker, as in this case, accidentally purchased 10,000, the broker (or the
brokerage house) would be responsible for the remaining 9,000 shares. These

10   safeguards are often lacking in cross-border transactions.

For the sake of simplicity, assume that two B/Ds are conducting a given
securities transaction by representing, respectively, a buyer (B/broker) and a
seller (S/broker). B/broker and S/broker communicate their desired
transactions to each other using conventional communication techniques such

15   as telephony, mail (including courier-delivered and facsimile-transmitted),
electronic mail, electronic direct file transfer, and/or other means. Eventually,
they will agree upon the parameters of the transaction. Typical parameter
values for a securities transaction, and variable names for these parameters
used herein, are: the identity of the security (SEID); the number of shares

20   (SHRNO); and the share price (SHR$). In addition to these, because the
present invention contemplates transactions across borders, additional variables
may include transfer, excise, or other taxes the seller's (and/or buyer's) nation
may impose on the transfer of a security (TRTX$). An additional optional
parameter may specify variations in share price. Because S/broker and

25   B/broker are in different countries, they can decide, during the course of
negotiations, on the currency B/broker must deliver or tender (BTENDCUR);
the seller can also specify a particular currency (STENDCUR). The currency
requested by the seller may not be the currency of the seller's domicile,
although the security typically will be quoted in the currency of the seller's

30   domicile; for example, many financial markets use United States dollars

because it is typically used as a standard currency value throughout the world. Thus, the buyer's currency type (BCUR), the currency in which the security is quoted (SECCUR), and the exchange rates between (i) the buyer's currency and that tendered (XBCUR) and (ii) the security currency and that tendered

5   (XSECCUR) may all have to be specified so that the transaction intended is well-defined and understandable to all involved. Of course, the system must also identify B/broker (BBRID) and S/broker (SBRID) to track each of the foregoing parameters as defined or offered by each party. Clearly, other and/or additional parameters can be specified as well; for example, an alternative

10   settlement forum.

In addition to items such as alternative settlement forums, currency and exchange rates, other issues may arise in cross-border securities transactions. Differences in exchange rates, expectations as to tax rates, transfer fees, and other factors may likely render an exact meeting of price and quantity

15   impossible. Accordingly, in a preferred embodiment the parties specify respective tolerance limits for one or more corresponding tolerance-based parameters within which a matching parameter from the other will be accepted. As another example, a party may wish to buy or sell a large block of securities for which it may be difficult and/or time-consuming to secure counterparties to

20   the transaction. Accordingly, the transaction may have to be divided into a number of separate transactions; for example, a holder of 1,000,000 shares may have to sell ten blocks of 100,000 shares each because there is no ready buyer for all of the seller's shares.

In practice, this invention is a post-transaction, pre-settlement system

25   that facilitates the information exchange to reach the agreement necessary to settle the transaction. Assume a buyer in the US desired to purchase 1000 shares of XYZ Co. traded in India; based on available information, the buyer is willing to purchase the shares at US$ 10.00 each. B/broker makes contact with and communicates (by voice, facsimile, and the like) this information to

30   S/broker. Assume that S/broker agrees to these terms. The transaction is now

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specified, and the two brokers preferably (hopefully) will communicate at least these details of the trade to each other so that they have confirmation of the agreement. Now, in the post-trade, pre-settlement phase, each of the brokers communicates to the present system the parameter values mentioned above;

5   e.g., SHRNO, SHR$, BBRID, SBRID, TENDCUR, and the like. One or more additional optional parameters may include, or take into consideration, variations in share price. Each or all of these parameters can be received by the system in the form of a Notice of Execution (NOE) message initiated by the buyer and/or the seller. Once the system receives an NOE, it identifies the

10   particular transaction (such as by assigning a unique identifier). The system receives further parameter values, for example, from further NOE messages sent by B/Ds, and from BON (Block Order Notification) messages sent by IMs. Preferably, an identifier uniquely identifying a given securities transaction is communicated to the B/Ds and IMs so that future communications, such as the

15   transmission of values for other parameters, can be accurately mapped to the information already stored in the system about the subject trade.

       Further to the tolerance-based parameters mentioned above, each of the parties (i.e., B/Ds and/or IMs) can specify their own acceptable corresponding tolerance limits for certain parameters. For example, the buyer may be willing

20   to purchase a given number of shares at US$ 9.90 to US$ 10.10; the seller may be willing to sell the given number of shares at a price not less than equivalent to US$ 9.95. The present system accepts each of the values transmitted and stores them to determine whether commensurate variables have been consistently specified by each B/D (and/or IM) and, if tolerances are identified

25   for the total net proceeds and/or receipts of the deal, whether the values fall within the specified tolerances. Note that the concept of tolerances could arise, for example, in connection with monetary values, such as the total net proceeds due and/or received for a given securities transaction.

       Because B/broker in the present example resides in the US, the system

30   can be programmed to enter a default value for BTENDCUR of US dollars, and

16

Rupees for STENDCUR. If S/broker specifies STENDCUR as US dollars and B/broker does not specify this parameter, the system then indicates to both brokers that the values they have indicated for TENDCUR are compatible between them, namely US dollars. When a tolerance is specified, the system

5   will indicate to the brokers that the SHRNO and SHR$ are compatibly specified if, at least, the values specified by one fall within the other's tolerance. Here, SHR$ will be communicated to the brokers by the system as having a value of US$ 9.95 and SHRNO as having a value of 1050. The B/Ds (i.e., B/broker and S/broker) need not communicate all of the parameters to the

10   system at once, but the system will store and track each of the brokers' communications as they are received until the information sufficient for settlement has been compatibly specified in the system. Preferably the system will update its communication to both brokers each time a new parameter or value is received by the system. Certain parameters, such as an expected return

15   or payment, can be calculated by the system; such a calculation of expected return or payment can include taxes and fees.

Once all of the parameters have been specified in a compatible manner, the transaction is completed and agreed to by the parties. From a practical point, thereafter, the physical certificate underlying the security, or some other

20   indicia of ownership, must be transferred to the buyer. Typically, an investor does not possess the certificate; it is held by a custodian (GC) for the beneficial holder, the brokerage. The brokerage where the broker trades has a book entry identifying the client, the number of shares owned, and the custodian holding the certificates for those shares. After a transaction is completed by this

25   invention, the certificates should be transferred to the buyer.

In practice, the certificate is transferred from one GC to another, assuming the buyer's and seller's brokerages use different GCs. GCs may be affiliated with one or more settlement forums, such as Cedel, Euroclear, the ISCC, or another clearing organization. Certain settlement forums have

30   agreements with other settlement forums (these agreements are typically

17

referred to as links or bridges) to facilitate the settlement process after a trade.
For example, there is a link between a settlement forum known as the Canadian
Depository for Securities, Limited (CDS) and US-based DTC (Depository
Trust Company). This link, operational for US and certain Canadian issues,

5   provides CDS with full access to US clearance and settlement, including
custody services. US-based ISCC (International Securities Clearing
Corporation) has a link with the London Stock Exchange (LSE) whereby
automated checking comparisons, clearance and settlement services are
provided for UK equities, and safe custody of securities is provided through the

10   Citibank Corporation. The Japanese Securities Clearing Corporation has an
ISCC-sponsored omnibus account at the DTC (Depository Trust Company) for
receipt and delivery of US equity issues listed on the Tokyo and Osaka Stock
Exchanges.

A link between ISSC and Cedel Bank of Luxembourg provides for the

15   settlement of various eligible securities, including PORTAL 144A issues, with
multi-currency capabilities among Cedel bank participants, other ISCC
participants, as well as participants or members of any other national clearing
and/or depository system having a link with Cedel Bank such as, for example,
Euroclear. The Stock Exchange of Singapore has an omnibus account at the

20   DTC for the receipt and delivery of US NASDAQ issues quoted in the Stock
Exchange of Singapore's (SES's) Foreign Equities Market/SESDAQ system on
behalf of SES.

Euroclear and ISCC are linked such that ISCC members have input
capabilities for Euroclear instructions and cancellations. ISCC accepts

25   instructions from users, reformats the instructions, and then submits them to
Euroclear. Finally, a link between ISCC and SD INDEVAL of Mexico
provides for the automated communication of instructions to INDEVAL's
computer mainframe. This link also provides for clearance and settlement of
transactions with Mexican equities, in Mexican Pesos or US Dollars.

30   Settlement confirmations and end-of-day statements are also provided, as well

as custody services for Mexican equities, collection of dividends, execution of rights offerings, and proxy voting.

According to one preferred embodiment of the invention, information pertaining to any of the aforementioned links is stored (e.g., in a look-up table,

5   database, and/or data store) within a processing mechanism. Illustratively, this processing mechanism is provided in the form of a TFM (Transaction Flow Manager) processor, shown in FIG. 1 as reference numeral 10, to be described in greater detail hereinafter. After the present system notifies the B/Ds that the transaction has been fully specified and completed, the system references the

10   stored custodian information and notifies all of the custodians about the details of the transaction so that the certificates can be transferred. The look-up table facilitates this communication by notifying GCs having agreements regarding these transfers. In a preferred embodiment, S/broker and/or B/broker also specify to the system a local market settlement time by which the settlement

15   (transfer of assets) must occur. This can be implemented by requiring the seller's GC to notify the system (or the B/Ds) that the certificates have been transferred before the period specified, and if the system does not receive such a notification, then the system notifies the B/Ds and the GCs that the agreed upon period for settlement has passed and the transaction has failed to settle.

20   Of course, the B/Ds (on behalf of the parties) still have an agreement and can consult their respective beneficiaries to inquire whether settlement should still be attempted in spite of the lapse of time.

The present system is also applicable to "electronic" or "dematerialized" securities. These are securities that are only issued in electronic form, and do

25   not have any other physical indicia (such as a stock certificate) specifying the intangible property. Additionally, it may be the case that the security is identified with a certificate in the buyer's country but is a dematerialized security in the seller's country. In such a case, the present system provides instructions to the entity charged with keeping track of the dematerialized

30   security, so that the respective interests of the buyer and the seller are

19

accounted for.

The invention will now be described with reference to the figures.

Fig. 1 is an illustrative view of the post-transaction, pre-settlement system according to the present invention. The system includes a transaction flow

5   manager (TFM) processor 10 illustratively implemented using a processing mechanism 12 coupled to storage 14. It is to be understood that TFM processor 10 may be implemented using a mainframe computer, a personal computer (PC), a computer network, or any other type of centralized and/or distributed processing system. Storage 14 may be non-volatile, such as, for

10   example, a data storage drive, and/or it may be implemented using random-access memory (RAM), read-only memory (ROM), and/or core memory. Storage 14 preferably may be arranged to store messages from the brokers in a message database (DB) 18, and may also be arranged to provide additional storage areas for participant profiles 21 (*e.g.*, B/Ds) as well as look-up

15   tables 23. Messages (such as an NOE message and/or a BON message) are received by the system, and transmitted from the system to the participants, via a communications pathway 40. Communications pathway 40 may represent any technique for conveying information from one place to another, including, for example, wireless communications, wired communications, and/or fiber

20   optic links, to name a few. The information may be conveyed using any of a wide variety of transmission protocols, including digital and/or analog data signals (which could, but need not, be encrypted or otherwise securely transmitted), voice (which may also be encrypted), mail (including postal, facsimile, and electronic correspondence, the latter two of which can also be

25   encrypted for security). Broker/Dealers (B/Ds) 50_1 through 50_a communicate with the system via the communications pathway 40, as do Global Custodians (GCs) 70_1 through 70_m and Investment Managers (IMs) 60_1 through 60_n. The typical securities transaction includes one IM, one B/D, and at least one GC. The communications pathway 40 may include one or more dedicated wired

30   and/or wireless communication links between the present system and the B/Ds

and/or GCs. It may also include a network by which B/Ds, GCs, and/or IMs can interface with the system. Such a network can have local areas (*e.g.*, a LAN) and/or span a wider area (*e.g.*, a WAN, optionally with satellite communication and/or radio frequency communication). Another preferred

5   network is the Internet, where secure communication can be conducted using secure hypertext transfer protocol (*i.e.*, via a private network).

Refer now to FIGs. 2A, 2B, and 2C which together comprise a flowchart setting forth an operational sequence performed according to a preferred embodiment of the invention. The overall operational sequence describes the

10   manner in which the system of FIG. 1 provides multilateral communications between a Broker/Dealer (B/D) 50_1, an Investment Manager (IMs) 60_1, and one or more Global Custodians (GCs) 70_1 through 70_n. More specifically, the system of FIG. 1 provides multilateral communications in response to the receipt of one or more messages from at least one of the B/D 50_1, IM 60_1, and

15   GC 70_1.

The program of FIGs. 2A-2F commences at block 101 where the TFM processor (FIG. 1, 10) receives an incoming message from any of the aforementioned parties (i.e., B/D, IM, and/or GC). In general, an incoming message may specify any of the following exemplary types of data: (1) a total

20   quantity and value allocation for the securities transaction, (2) a block trade amount for the securities transaction, (3) net proceeds of the securities transaction, (4) maximum acceptable deviation from the net proceeds of the securities transaction, and (5) settlement location and/or venue. However, the maximum acceptable deviation need not be received in the form of an

25   incoming message, and could be specified in the form of a profile that is pre-stored in electronic memory. The message may also includes a transaction ID (TRXID) uniquely identifying a given securities transaction. The messages submitted by parties such as B/Ds, IMs, and/or GCs may include any of Notice of Execution (NOE) messages, Block Order Notification (BON) messages,

30   allocations messages, net proceeds messages, and settlement details messages.

For purposes of explanatory expediency, incoming messages may include some or all of the fields shown in the table immediately following, wherein the variables are those which were previously discussed in conjunction with the illustrative cross-border securities transaction. However, more

5   detailed data structure tables will be described hereinafter with reference to FIGs. 4A-4L. Assume that a buyer's B/D initiates an illustrative message with the following values:

TRXID	BBRID	SEID	SHRNO	SHR$	SHR$TOL
13424	ML123	ATT	1000	100	2

10   where TRXID is the transaction ID, BBRID is the identity of the buyer's B/D, SEID is the identity of the security, SHRNO is the number of shares, SHR$ is the share price, and SHR$TOT is the maximum deviation (plus and minus) from the share price that the buyer is willing to accept. This message does not have to include all of these fields. For example, the SHR$TOT field could be

15   eliminated. The message could also include additional fields such as BTENDCUR, specifying the buyer's tender currency, and/or TRTX$, specifying tax to be levied on the transaction.

Subsequent to issuance of the buyer's message, the seller's B/D will issue a message. Note that, alternatively, the seller could initiate a message

20   first. An illustrative simplified message issued by a seller is as follows, although it should be noted that a more detailed message data structure is set forth in FIGs. 4A-4L.

TRXID	SBRID	SEID	SHRNO	SHR$	SHR$TOL
13424	SB555	ATT	1200	105.9	7.5

At block 103, the program provides a confirmation prompt to the entity issuing ·
the received message, which may be B/D 50_1, IM 60_1, or GC 70_1,

5   acknowledging that the message has been received.

At block 105, the program checks to ascertain whether or not the
received message conforms to a predefined format, examples of which are
shown in the data structure tables above. Although any of various message
formats may be used to implement the invention, on occasion, data

10   transmission errors may occur, or unauthorized parties may attempt access, and
it would be desirable to identify such errors at the present stage, before further
processing takes place. If the message does not conform to a predefined
format, the entity that issued the message is alerted (block 107), and the
program loops back to block 101. If, on the other hand, the message conforms

15   to a predefined format, the message is considered to be an NOE (notice of
execution) message, and the program advances to block 109. At block 109, an
optional confirmation message is sent to the entity that issued the message,
conveying the notion that the message has been accepted for further processing.
Note that this step is not required – i.e, the entity that issued the message need

20   not be notified that the message has been accepted.

Next, at block 110, the program performs a translation of the received
security ID (SEID) to a primary security identification code. This primary
security identification code is fixed and determined by the market and/or the
security itself, and could represent, for example, a standard ISIN or CUSIP

25   security identification number. At block 111, a test is performed to ascertain
whether or not the incoming message includes a unique match reference
number indicating that the incoming message relates to any previously-
received incoming messages. If so, the program jumps to block 120, to be
described hereinafter. If not, the program advances to block 112 where the

30   data field(s) of the incoming message are compared with the data field(s) of

23

previously received message(s) to identify any previously received message(s) having data field(s) similar and/or identical to that of the incoming message.

Next, at block 113, a test is performed to ascertain whether or not there is a previously-received message having some or all data field(s) with identical

5   and/or similar content to that of the incoming message. The affirmative branch from block 113 leads to block 115 (to be described hereinafter), and the negative branch from block 113 leads to block 114. At block 114, the program waits for additional incoming messages and, upon receipt of a new message, the program loops back to block 112.

10   The affirmative branch from block 113 leads to block 115 where a unique match reference number is assigned to the received messages having similar and/or identical content. The system sends notification to the senders of all incoming messages which were matched at block 113. The notification includes the unique match reference number assigned at block 115. The

15   incoming message is then stored for matching to future incoming messages (block 119).

Block 120 is reached by an affirmative branch from block 111. At block 120, all stored message(s) with unique match reference numbers referring to the same transaction as the incoming message are retrieved. Next, (block 121),

20   stored profile settings and/or retrieved message(s) and/or the incoming message is checked for any applicable specified tolerance parameter. Matching of all data sets among all messages retrieved at block 120 is performed, based upon tolerances as specified in the stored profile and/or the incoming message and/or the retrieved message(s).

25   A test is performed (block 124) to determine whether or not there are any mismatches of mandatory parameters. If so, the program jumps to block 131, to be described hereinafter. If not, the program continues to block 125 where yet another test is performed to determine whether or not all messages for this transaction have been received and matched. This step could be

30   performed, for example, by examining data structure fields to see if a field is

24

missing a value. If so, the program jumps to block 129 where all transaction details are routed to the local market and/or to the GC and/or to the B/D, based upon a profile stored in the TFM processor. The program then ends for purposes of this transaction.

5   The negative branch from block 125 leads to block 127 where the program waits for additional incoming messages. If an incoming message is received, the program loops back to block 112.

Block 131 is reached from the affirmative branch of block 124. An incompatibility message is sent to all parties identified in all messages retrieved
10   at block 120. The parties are then provided with the option of cancelling, replacing, modifying, and/or deleting one or more messages. This functionality may be implemented, for example, by permitting one or more parties to issue new incoming message(s) which are then received by the TFM processor. At block 135, a test is performed to ascertain whether or not the parties modify,
15   replace, delete, and/or cancel one or more messages. If so, the TFM processor performs matching of data based upon the replaced, cancelled, deleted, and/or modified message(s). The program loops back to block 124. The negative branch from block 135 leads to block 137 where an incompatibility message is sent to all parties, and the program ends for purposes of this transaction.
20   The flowchart of FIGs. 2A-2F describes the process whereby, at any time during the post-trade, pre-settlement process, a matching mechanism accessible from a communications pathway matches data entered into this pathway. The matching process matches any of the following types of data: (1) matching the total quantity and value allocation, as entered by a first party,
25   to total quantity and value allocation as entered by a second party; (2) matching net proceeds, as entered by a first party, to net proceeds, as entered by a second party; (3) matching maximum acceptable deviation from net proceeds, as entered by a first party, to maximum acceptable deviation from net proceeds, as entered by a second party; and (4) matching the settlement locations and/or
30   venues as entered by all of the parties. However, the maximum acceptable

deviation need not be received in the form of an incoming message, and could be specified in the form of a profile that is pre-stored in electronic memory.

The communications pathway is coupled to an indication mechanism, responsive to the matching mechanism, for providing a first indication as to the
5   existence of a data match and/or the non-existence of a data match. The indication mechanism may include a display for indicating matches and/or mismatches between any of the following: (1) the total quantity / value allocation and the block trade amount, (2) net proceeds, (3) maximum acceptable deviation from net proceeds; and (4) settlement locations and/or
10   venues.

An optional timestamp can be applied to all incoming messages, enabling subsequent determination of settlement efficiencies and any possible settlement bottlenecks. Universal Coordinated Time (UTC), previously known as GMT (Greenwich Mean Time), can be used as the timestamp standard.
15   Refer to FIG. 3 which is a table setting forth a list of abbreviations and/or acronyms which are used throughout the specification. Each abbreviation and/or acronym is associated with a corresponding definition.

FIGs. 4A-4P set forth an illustrative data structure diagram that describes the informational content of messages received by the TFM processor from
20   IMs and B/Ds. An actual message could, but need not, employ all of the fields shown in FIGs. 4A-4P. This data structure diagram is presented for exemplary purposes, to illustrate what such messages could contain. The data structure of FIGs. 4A-4P includes fields adapted to store information regarding the sender of the message, reference and trade identification details, details concerning the
25   parties to the transaction, security identification details, additional information for fixed income instruments, trade details, links to another trade that was cancelled, links to another trade that was disputed, and additional optional details.

The TFM processor (10, FIG. 1) provides support for trades involving
30   instruments such as equities, fixed and floating rate bonds, short-term

26

instruments and simple asset and mortgage backed securities for cash settlement. The TFM processor is adapted to perform any of the following functions:

1. Block Trade Processing
2. Allocations Processing
3. Net Proceeds Processing
4. Accounting Details Processing
5. Settlement Details Processing
6. Free Flow Forex Processing
7. Cancel/Replace/Delete Processing
8. Alert and Deadline Processing
9. Master and Reference Data
10. Participant Profile Data
11. Query Processing.

Each of these functions will now be considered in sequence, commencing with block trade processing.

27

1. Block Trade Processing

An institutional trade typically commences when an IM makes an investment decision to buy or sell securities on behalf of its institutional clients. The IM places an order (block order) to buy or sell securities with a B/D. The B/D executes the block trade on behalf of the IM. Since the quantities involved in a block trade are usually very large, the B/D may execute the block trade in smaller lots with different prices for each lot depending on liquidity conditions in the market. The B/D calculates the average price for the block trade once the entire block trade quantity has been executed and communicates both the average price and the settlement date for the block trade to the IM via a notice of block trade execution to the IM. The B/D may also inform the IM about the partial executions of the block trade and the price for each partial execution depending upon the preference of the IM.

It is possible that a single block trade would not be fully executed within a single trading day. In such cases, the B/D and the IM may agree to truncate or warehouse the block trade up to the quantity executed at the end of the day. Trading activity may occur through the use of telephones, faxes, etc., or by using electronic networks leveraging protocols such as FIX. However, the involvement of the TFM processor (FIG. 1) in the post trade processing cycle starts with the receipt of a Notice of Execution (NOE) message.

TFM Processor Functionality

Once a block trade has been executed, the TFM processor (10, FIG. 1) receives a copy of the Notice of Execution (NOE) from the B/D. Normally, this is the starting point of the trade life cycle in the TFM processor. If the IM prefers to interact with the TFM processor in a "conversational" mode, on receipt of a pending NOE for a block trade from the TFM, the IM submits a Block Order Notification (BON) to the TFM processor. Alternatively, the IM may submit a BON independently.

28

The trade details provided by either the B/D or the IM to the TFM processor regarding the block trade are set forth in a message that utilizes some or all of the fields which were previously described in connection with FIGs.

5   4A-4P. The B/D submits a Notice of Execution and the IM submits a Block Order Notification. The TFM processor 10 (FIG. 1) timestamps the incoming block trade details on receipt and assigns a unique receipt reference number for the block trade details. The TFM processor also validates the message for syntax and performs the necessary edit checks. If there are any errors detected

10   during the syntax or edit checks, the TFM processor sends an error message indicating the reasons for error to the sender of the message.

If both the syntax and edit checks are successful, the TFM processor attempts to match the received block trade details with the unmatched trades in the TFM processor 10 (FIG. 1). FIG. 5 is a data structure diagram setting forth

15   data fields that are used by the TFM for matching purposes. If the TFM does not find a match it stores the details of the block trade received with the status of "unmatched trade" in the trade database.   If the TFM processor finds a match, it assigns a unique match reference number to the matching incoming messages. The previously mentioned "transaction ID", abbreviated "TRXID",

20   could (but need not) be used for this purpose. The TFM processor then stores the details of both sides of the trade with a status of "Matched Trade" in the trade database. The status of the matching trade in the TFM trade database is   also updated to "Matched Trade" along with the matching reference number in the trade database.   All other fields, if specified by both the participants in the

25   block trade details (FIGs. 4I-4O), are compared and a warning message is issued if they do not match.

The TFM processor (10, FIG. 1) provides a "just-in-time" functionality. The TFM processor determines when a notice of pending transaction needs to be "pushed" to the counterpart. If there is no match available for the block

30   trade details submitted by one party, the TFM processor sends a notice of

29

pending transaction to the counterpart immediately, providing the counterpart has opted to operate in conversational mode. If the counterpart is in independent submission mode, the TFM processor checks the profile of the counterpart for the timing of the notice of pending transaction to be sent. If the timing set is beyond the deadline for the NOE and BON match, then the notice of pending transaction is immediately sent. If no timing has been set in the participant profile, the TFM processor will push the notice of pending transaction after a system-specified duration (for example 15 minutes).

The TFM processor may also be equipped with a translation mechanism by which a first security identification code specified according to a first security numbering agency is translated into a second security identification code for the same security according to a second security numbering agency. The TFM processor uses the following logic for matching security identification if the primary numbering agency code is not specified as the numbering agency code:

➤ The TFM processor first translates the security identification in the numbering agency code specified by the participant to the primary numbering agency code. The primary numbering agency code will be determined based on the type and country of issue of the security. If participants have specified a mutually agreed upon identification, the TFM processor will not attempt any translation.

➤ The TFM processor attempts for a match on the translated primary numbering agency code.

A security numbering scheme known as ISIN (refer to FIG. 3 for the meaning of the foregoing abbreviation) may be utilized as the primary numbering agency code for most of the securities supported by the TFM processor.

Example 1: (Security Identification):

Participant A (IM) specifies a security identification in CUSIP. The TFM processor translates the CUSIP identification to an ISIN, which is the primary numbering agency code for the security. Similarly when the counter participant B (B/D) specifies a security identification in SEDOL, the TFM processor

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translates the identification to ISIN. The translated ISINs on both block trades are matched.

When the Allocations are submitted, the GC is informed of the block trade details and the Allocation details with the security identification code originally

5   submitted by the IM (CUSIP) and the primary numbering agency code (ISIN). The same principle will be applicable for sending notice of pending transactions to counter parts as well as sending information to interested parties.

10   **Tolerance Matches for Price**

Matching of price within a tolerance is applicable if both the parties have indicated in their profiles that they do not require an exact match on price. Parties (i.e., participants) can also indicate in their profiles that they need an exact match on the External Reference Number for carrying out a tolerance

5   match on the Block Gross Amount. This tolerance is a participant-defined tolerance based on settlement currency and type of instrument. These tolerances can be fixed as a % and/or an absolute amount. The following examples illustrate various scenarios.

0   **Example 1:**

Participant A (IM) and Participant B (B/D) want an exact match on price. Participant A submits a Block Notification for 100,000 IBM shares at an unit price of USD 78.50634. Participant B submits a Notice of Execution for 100,000 IBM shares at an unit price of US 78.5063. Since both participants

5   want an exact match on price, the TFM processor creates two unmatched trades. Participant A and B will have to analyse their alleged trades against their unmatched trades to resolve the difference. One of the participants should effect a replacement to change the price so that the trades can match.

0   **Example 2:**

31

Participant A (IM) and Participant B (B/D) have indicated that an exact match on price is not required. Both Participant A and Participant B wants a tolerance match only if the external reference #s match. Participant A submits a Block Notification for 100,000 IBM shares at an unit price of USD 78.50634 and a

5   block gross amount of USD 7,850,634. Participant B submits a Notice of Execution for 100,000 IBM shares at a unit price of US 78.5063 and a block gross amount of USD 7,850,630. Participant A has specified a tolerance of USD 10 for equities and participant B has specified a tolerance of USD 15 for equities. Participant A and B have carried out the trade using FIX and have

10 both supplied an external reference # FIX123 for the trade. The TFM processor matches the trade as the difference in the block gross amount (USD 4) is within the lowest of the tolerances of the participants (USD 10) and assigns a TFM match reference # TFM123 for the trade.

15 **Example 3:**

Participant A (IM) and Participant B (B/D) have indicated that an exact match on price is not required. Participant A and B have indicated that an external reference # match is not required for a tolerance match. Participant A submits a Block Notification for 100,000 IBM shares at a unit price of USD 78.50634

20 and a block gross amount of USD 7,850,634. Participant B submits a Notice of Execution for 100,000 IBM shares at a unit price of US 78.50 and a block gross amount of USD 7,850,000. Participant A has specified a tolerance of USD 10 for equities and participant B has specified a tolerance of USD 15 for equities. The TFM processor does not match both the trades as the difference in the

25 block gross amount (USD 634) is outside of the lowest of the tolerances of the participants (USD 10). Participants A and B will have to analyse their alleged trades against their unmatched trades to resolve the difference. One of the participants should effect a replacement to change the price and the block gross amount so that the trades can match.

30

Correction of Mismatched Messages

If participants submit messages with details that do not match, the TFM processor will create two unmatched trades. For example, if the IM and B/D have wrongly specified the security identification, but rather specified a different valid code, the TFM processor will generate two unmatched trades, one for each side submitting the block trade details. The IM and the B/D will then have to investigate their unmatched trades against their alleged trades to determine possible matches. To indicate the differences to counterparts (i.e. other parties to the transaction), participants can send a Dispute message against an alleged trade by indicating the reference # of their unmatched trade. (For further details please refer to the Cancel/Delete/Replace processing section.) After analysing the differences, the counterpart can send a replace message to their side of the block trade details, which will automatically result in a match of the trades in the TFM processor.

Example:

Participant A (B/D) sends a NOE message to the TFM processor for 100,000 IBM shares at a price of USD 78.50 against Participant B (IM) having reference # A1234. Participant B sends a BON message to the TFM processor against Participant A for 100,000 IBM shares at a price of USD 78.00 having reference # B1234. The details do not match and the TFM processor creates two unmatched trades, one for each side. Participants A and B also get an alleged trade.

Participant A finds that the difference between the alleged trade and the unmatched trade is the price field (difference of USD .50) and sends a Dispute message against the alleged trade B1234 indicating that it should match with their trade reference # A1234. Participant B sends a replacement for trade B1234 changing the price to USD 78.50. On effecting the replacement, the TFM processor matches trades A1234 and B1234 and assigns a TFM match reference # T1234.

Housekeeping of Trades

The TFM processor maintain in an active trade database all matched trade information for up to a predetermined amount of time (e.g., 90 days).

5   This predetermined amount of time is a TFM processor system parameter termed "number of days for archiving". It may be calculated from the later of either the settlement date or the date on which details were matched. During this 90-day period participants will be allowed to query, cancel or replace their trade details. After the 90 days, the data will be archived and will be available

10   only for queries.

The TFM processor cancels pending unmatched trades if either the entire block is unmatched or some of the Allocations pertaining to the block have not been enriched and matched after 30 days. This is a TFM processor

15   system parameter called number of days for automatic cancellation of unmatched trades which starts at the date the block trade is input into the TFM processor.

TFM Processor Outputs:

20   The TFM processor is adapted to generate any of the following outputs:

➢ Error Messages, indicating the reasons for failure, will be sent if there are any validation failures.

➢ A Trade acceptance notification is sent if the block trade is accepted by the TFM processor, based on the profile of the participant submitting the trade

25   details.

➢ A notice of pending transaction may also be sent to the counterpart if an unmatched trade is accepted.

➢ If there is a match, a match notification message is sent to both the buyer and the seller indicating the match reference number.

0   ➢ Any required match warnings are also notified along with the match

34

notification message.

There are variations to this function for different types of transactions and processes. The following are the possible variations for different transaction types:

5

Broker-to-Broker Trades

B/Ds can also report and match their Broker-to-Broker trades using the TFM processor. In this case one of the B/Ds (called the executing broker) will
10   provide the NOE and the counterpart broker will provide the BON. The transaction type will be set as "Broker-to-Broker" by both sides. The TFM processor will not have any allocation process for Broker-to-Broker trades. Participants can also submit all the necessary details including net proceeds and settlement details, along with their NOE/BON for a Broker-to-Broker trade
15   using a multi-part message. The TFM processor will carry out the net proceeds match and the channel compatibility match, as explained in subsequent sections, for the Broker-to-Broker trades. B/Ds can indicate in their profiles, if they will use the TFM processor for matching Broker-to-Broker trades. If one of the B/Ds in the Broker-to-Broker trade indicates that they do not want to use ·
20   the TFM processor for Broker-to-Broker trades, the TFM processor will not accept the Broker-to-Broker trade.

Fund-to-Fund Trades

Refer to FIG. 6 which sets forth information flow for a Fund-to-Fund
25   trade. Fund-to-Fund trades are submitted either by a single IM (to handle internal crossings between funds), or by two different IMs (if they have traded using electronic networks such as Instinet or E-crossnet). Fund-to-Fund trades are handled by the TFM processor as two institutional trades. Both sides of the Fund-to-Fund trade will be reported as institutional trades against a virtual

broker, which is either a clearing account providing internal crossings or an institution providing the fund-to-fund crossing services (such as E-crossnet). FIG. 6 explains the handling of a Fund-to-Fund trade. All of the inputs are indicated as Fund-to-Fund trade in the Trade Transaction Type. The common

5   virtual broker can link the two sides of the fund-to-fund trade using a link reference number.

Basket/Portfolio or Program Trading

Participants (parties) report and match basket/portfolio or program

:0   trades as individual institutional trades relating to each underlying security of the basket/portfolio or program. Participants specify a common basket/portfolio or program reference number, and will designate the trade transaction type as "Basket/Portfolio or Program" trade A typical basket/portfolio or program trade will be a pre-allocated trade where the B/D will specify the allocations for

5   the underlying institutional trades. The TFM processor will support queries to participants based on the basket/portfolio or program trade reference number.

2. Allocation Processing

IMs buy and sell securities on behalf of their institutional clients

0   (pension funds, mutual funds, insurance funds, etc.) The IM who has placed a Block Order identifies the clients on whose behalf the buy or the sell decision has been made. The IM allocates the quantity of securities bought or sold among its various clients and informs the TFM processor through one or more Allocation messages. Allocation messages are sent to the TFM processor at the

5   same time or after the BON is submitted.

TFM Processor Functionality

IMs submit allocation messages to the TFM processor in accordance with one of the following procedures:

36

(A): The IM allocates the trade as soon as the Block Order is submitted to the TFM processor. The Allocation message may be sent to the TFM processor along with the BON in a multi-part message or the Allocation may be sent to the TFM processor after the BON is submitted as a separate message. In both

5   cases, the TFM processor may receive the Allocations before or after the BON is matched with the NOE. The TFM processor matches the Allocation quantity with the BON quantity. Information flow for this allocation process is shown in FIG. 7.

(B): The IM, upon receipt of communication from the TFM processor

10   of Pending Notice of Execution, may affirm the trade by submitting the BON in conversational mode and subsequently submitting the Allocations. In this case, the TFM processor first matches the trade (BON with NOE), and then the TFM processor matches the Allocation quantity with the trade quantity. Information flow for this allocation process is shown in FIG. 8.

15

Partial Allocations

IMs may not have the complete client information for all of the Allocations. In cases where the IM has incomplete information regarding a particular Allocation, the IM can submit Allocations whose details are

20   complete to the TFM processor. The Allocations for the entire trade quantity can be provided as part of a single message or through multiple messages, as is shown in the information flow diagram of FIG. 9.

When the IM sends Allocations for a trade in more than one
message, these Allocations are called Partial Allocations. Partial Allocation
messages can be submitted when the IM identifies the client(s) for the
Allocation. The IM gives an unique sequence number for every Allocation

5   contained in the messages submitted. Each of the Allocation messages will
specify the quantity allocated in that message. The TFM processor will
compare for each partial Allocation message, the total quantity of Allocations
in the message with the unallocated quantity for the trade.

10   ## Input Information

Refer to FIG. 10, which is a data structure diagram describing . .
information provided by the IM to the TFM processor as part of an Allocation
message. The TFM processor timestamps the incoming Allocation message
upon receipt and assigns it a unique receipt reference number. The TFM

15   processor also validates the message for syntax and performs the necessary edit
checks. The TFM processor validates the Trade Reference number given in the
Allocation message that is submitted by the participant. There should be an
existing trade within the system with the same reference number and the same
counterpart. When all Allocations are part of a single message, the TFM

20   processor matches the total quantity of the Allocations to the trade quantity.

When Partial Allocations are received by the TFM processor, the TFM
processor keeps track of the Allocations received for the total trade. When the
total quantity of Allocations received matches the total trade quantity, the
Allocation process is completed and the trade status is updated as "Matched

25   Allocated Trade" or "Unmatched Allocated Trade" depending on whether the
trade is matched or not. If the quantity allocated in the message is more than
the unallocated quantity for the trade before the arrival of the message, the
message being processed is treated as "In Error." Once the Allocation message
has passed the total quantity check, each allocation within the message is

30   validated for content. Only the allocations failing the validations will be

rejected by the TFM processor. The remaining allocations will be processed normally by the TFM processor.

Example 1:

5   The IM has placed a block order for 100,000 shares for which partial Allocations are being submitted. The first Allocation message is submitted with the following control fields:

Quantity allocated in this message: 25,000

(Reference number 1 & 2)

10

The TFM processor verifies that the quantity allocated is not more than the unallocated quantity. The second Allocation message is submitted with the following control fields:

Quantity allocated in this message: 25,000

15   (Reference number 3 & 4)

The TFM processor verifies that the quantity allocated is not more than the unallocated quantity. Another Allocation message is submitted with the following control fields:

20   Quantity allocated in this message: 40,000.

(Reference number 6 & 7)

The TFM processor verifies that the quantity allocated is not more than the unallocated quantity. TFM processor finds that the trade is not fully allocated..

25   Another Allocation message is submitted with the following control fields:

Quantity allocated in this message: 10,000

(Reference number 5)

The TFM processor verifies that the quantity allocated is not more than the

30   unallocated quantity. When the quantity allocated equals the unallocated

Trade" or "Unmatched Allocated Trade" depending on whether or not the BON/NOE match has taken place.

Example 2:

5   The IM has placed a block order for 100,000 shares for which partial Allocations are being submitted. The first Allocation message is submitted with the following control fields:

Quantity allocated in this message: 25,000

(Reference number 1 & 2)

0   The TFM processor verifies that the quantity allocated is not more than the unallocated quantity. The second Allocation message is submitted with the following control fields:

Quantity allocated in this message: 25,000

(Reference number 3 & 4)

;   The TFM processor verifies that the quantity allocated is not more than the unallocated quantity. Another Allocation message is submitted with the following control fields:

Quantity allocated in this message: 40,000

(Reference number 5 & 6)

)   The TFM processor verifies that the quantity allocated is not more than the unallocated quantity. Another Allocation message is submitted with the following control fields:

Quantity allocated in this message: 20,000

(Reference number 7)

TFM processor verifies that the quantity allocated (20,000) is more than the

unallocated quantity (10,000). TFM processor marks the Allocation Message as "In Error."

Example 3:

5   The IM has placed a block order for 100,000 shares for which partial Allocations are being submitted. The first Allocation message is submitted with the following control fields:

Quantity allocated in this message: 25,000

(Reference number 1 & 2)

10

The TFM processor verifies that the quantity allocated is not more than the unallocated quantity. The second Allocation message is submitted with the following control fields:

Quantity allocated in this message: 25,000

15   (Reference number 3 & 4)

The TFM processor verifies that the quantity allocated is not more than the unallocated quantity. Another Allocation message is submitted with the following control fields:

20   Quantity allocated in this message: 40,000

(Reference number 5 & 6)

The TFM processor verifies that the quantity allocated is not more than the unallocated quantity. Another Allocation message is submitted with the

25   following control fields:

Quantity allocated in this message: 10,000

(Reference number 8)

The TFM processor verifies that the trade is fully allocated, but finds that

30   sequence number 7 is missing. TFM processor sends a warning to the IM

41

informing about out-of-sequence Allocations.

Account Number Cross-Referencing

An allocation message that the TFM processor receives from an IM may
5   provide the Account Number of the client as per the IMs internal records,
and/or pursuant to the GC's client account number. The TFM processor could,
but need not, perform any cross-referencing of the IM's account number to the
B/D's internal account numbers. To enable the B/D to cross-reference between
the IM's number and the B/D's internal reference number, the IM can also
10   provide in the Allocation message the access code relating to the vendor's
system where the account number is registered, if it is indeed registered (e.g.,
in Alert, SID, etc.) The TFM processor will send this information to the B/D as
part of the Allocation Notification. The B/D will interface with the vendor
system for internal account set-up and cross-referencing purposes. The GC
15   will receive the IM's and its own account numbers, as provided by the IM on
the allocation.

It is possible to utilize a new standard numbering scheme to identify
accounts/portfolios. This would involve the creation of an "Account/Portfolio
Registering Agency" that would allocate unique account numbers for each
20   account/portfolio that an institutional investor (e.g., a mutual fund, a pension
fund) would want to register. This registering agency would collect the
minimum amount of information about the account/portfolio that is needed for
IMs, B/Ds, and GC to recognize this entity. The IM and the GC would use the
unique number (directly or by cross-reference). The association of this unique
25   number with the IM BIC code would uniquely define the account for a B/D.
As per the proposed scheme, the IM will identify their client account numbers
as "Portfolio X," the GC will identify their client account as "Portfolio X" and
the B/D will identify their client account as "Portfolio X at IM Y." There are
several potential consequences related to this proposal. The design of the TMF
30   described herein will allow for such a possible development in the future.

The transition from the current situation to a new account numbering system could proceed as follows:

> In the early phase of the proposed scheme, the IM will submit its account
5   number, the GC's account number and a GSTPA (Global Straight Through
      Processing Association) account number, if available. The B/D will receive
      from the TFM processor, the IM's account number and the GSTPA account
      number, if provided by the IM. The GC will receive from the TFM
      processor, the IM's account number, the GC's account number and the
10   GSTPA account number, if provided by the IM.

> As the proposed scheme develops, the IM submits the GSTPA account
      number only as part of the Allocation message. The B/D and the GC will
      receive the GSTPA account number from the TFM processor as part of the
15   Allocation Notification and will do the required cross-referencing internally
      in their own applications.

Security Identification

The TFM processor provides one or more security identification
20   messages to the GCs. These messages include a security identification number
      in the numbering agency code supplied by the IM, and/or in the primary
      numbering agency code translated by the TFM processor. Translated codes are
      provided in the event that the number received from the IM is not a
      prespecified primary code to be utilized by the TFM processor, such as, for
25   example, ISIN.

Example 1: The IM and the B/D have submitted the trade details in ISIN,
      which is prespecified as the primary numbering agency code for the security.
      The TFM processor will notify the Allocations with the details of the security
30   in ISIN, which was used by the IM to report the trade.

Example 2: The IM submits the security details in CUSIP. The B/D submits
the security details in SEDOL. As the TFM processor has already translated the
CUSIP and SEDOL to ISIN (which is the primary numbering agency code)

5   before the trade match is done it will notify the GC of the security details in
ISIN and CUSIP, which was the code supplied by the IM.

Settlement Location

The B/D provides an NOE message to the TFM processor specifying the

10 settlement location that was explicitly or implicitly included in the trade
agreement. This information will be relayed with each Allocation as it is sent
to the GC.

Outputs

15 The following are output messages generated by the TFM processor for the
aforementioned allocations process.

➢ The TFM processor sends one or more notification messages to the B/D
regarding the Allocations received from the IM. The notifications are sent
for every Allocation accepted by the TFM processor. The notifications to

20 the B/D will include the particulars of each Allocation. This enables the
B/D to submit the Net Proceeds and Settlement Details for each Allocation.
This message is sent to the B/D only after the trade is matched.

➢ The TFM processor sends one or more notification messages to the relevant

25 GC on acceptance of every Allocation. The notification to the GC will
include all the particulars of the trade except the trade quantity (as per the
BON or the matched trade, if the trade is matched) and the Allocation
details as per the Allocation message. This enables the GC to prepare for
the settlement very early. As the settlement location information from the

30 NOE is vital information for the GC, it would be better to send the

44

Allocation when the NOE and BON have matched. If the trade is not yet matched and the GC had indicated a desire to receive Allocations right away in its profile, the notification will indicate that the trade is in unmatched status and will have to be sent again with the settlement location

5   as soon as it is available (i.e., after the NOE/BON match occurs).

➤ If the IM or the B/D has appointed a third party to submit net proceeds, the TFM processor sends a message specifying the details of the trade and the Allocation details to this third party. This enables the substituting party to

10   compute the net proceeds and submit them to the TFM processor.

➤ If the B/D or the GC has appointed a third party to submit settlement details, the TFM processor sends a message specifying the details of the trade and the Allocation details to this third party. This enables the

15   substituting party to submit the settlement details to the TFM processor.

➤ Error messages indicating the reasons for failure will be sent if there are any validations failures. An error message can be at the level of the entire allocation message submitted by the IM if the message fails the total

20   allocation quantity check. Error messages can also be at the level of an individual Allocation if they fail any content check (e.g., invalid GC identification, etc.)

➤ Allocation acceptance success messages will be sent when Allocations are

25   successfully accepted by the TFM processor. The acceptance success messages are at the level of each individual allocation submitted.

➤ When the block trade is fully allocated a Status Change message, indicating that the trade is fully allocated is sent to both the IM and the B/D. This

30   message to the B/D is sent only after the trade is matched.

45

The data structure diagram of FIG. 11 summarises the input and the output messages utilized throughout the above-described Allocations process.

5   **Step Out Trades**

A trade where the IM instructs the executing B/D (step out broker) to allot a portion of the trade to another B/D (step in broker) is called a "step out trade." The IM generally allots these trades to satisfy soft dollar arrangements it has with the step in brokers. The executing B/D who receives (buy trade) or

10 delivers (sell trade) all the quantity of the trade and breaks out the trade according to the direction of the IM is called "step out broker." A non-executing B/D indicated by the IM on one or more Allocations who is responsible for the delivery of the quantity allotted in the Allocation is called a "step in broker. "

15 As part of an Allocation message, the IM will indicate whether a particular Allocation has to be stepped out. If the Allocation has to be stepped out, the message indicates the identification of the step in broker. Upon receipt of the stepped out Allocation, the TFM processor will update the current trade quantity by the stepped out quantity and create new alleged trade details for the

20 stepped out quantity. The trade details for the new alleged trade (BON) and the Allocation details will be sent to the step in broker. The step in broker will submit the trade details (NOE) to affirm that the trade stepped out in its favour.

The TFM processor will mark the Allocation sequence number of the original block trade as stepped out. Any deletions or replacements of the

25 original trade will not impact the new trade created for the step out Allocation. The alleged new trade created by the step out Allocation will have a TFM processor-generated trade reference number (starting with "T"). This will be treated as a completely new trade and any deletions or replacements will be independently applicable to this trade. The link between the original block·

30 trade and the new trade, arising out of step out, will be maintained at the·

Allocation level of the original trade.

The step out/in brokers can specify in their profiles as to whether the Broker-to-Broker transaction relating to the step out trade should be handled by the TFM processor. Based on the profiles of the step out/in brokers, the TFM
5   processor will also create new (if both step out/in B/Ds indicate that they want to handle the broker-to-broker leg using the TFM processor) Broker-to-Broker trade details for the step out trade between the stepped out broker and the step in broker. The TFM processor will send these details on behalf of the stepped out broker to the step in broker. The step in broker in turn will submit the trade
10 details to affirm the trade. This Broker-to-Broker trade will be treated as a completely new trade and all processes will be independently applicable to this trade. The information flow diagram of FIG. 12 explains "step out" trades from the perspective of a "stepping-in" B/D.

15 **Example:**

> IM, ABC places a buy order with broker XYZ for 100,000 VOD.L.
> The Allocation details are as follows:

20	Quantity	Account Name	Step out indicator	
	10,000	A 123	None	
	30,000	B 456	None	
	10,000	C 789	Step out to	B/D 1
25	30,000	D 012	None	
	20,000	E 345	Step out to	B/D 2

>. Upon receiving the Allocations, the TFM processor changes the quantity of the trade between ABC (IM) and XYZ (B/D) to 70,000 (trade quantity
30 100,000 – step out quantity 30,000)

47

> The TFM processor informs the stepped out broker of all the Allocations including the Allocations that were stepped out.

> The TFM processor creates a Notice of Pending transaction against B/D 1 (Step in broker 1) for 10,000 shares of VOD.L at the executing price with ABC (IM).

5

> The TFM processor creates a Notice of Pending transaction against B/D 2 (Step in broker 2) for 20,000 shares of VOD.L at the executing price with ABC (IM).

> Both the steps of brokers B/D 1 and B/D 2 should submit Notices of Execution (sell) messages with ABC as a counterpart for the trades stepped

10

out in their favour and for which the TFM processor has sent out a notification message (a Notice of Pending Transaction).

> The TFM processor will also create the following Broker-to-Broker transactions:

15

> Seller XYZ Buyer B/D 1 10,000 VOD.L

> Seller XYZ Buyer B/D 2 20,000 VOD.L

> Both the transactions will be at the executed price of XYZ. Execution of the original block trade and a notice of pending transaction are sent to B/D 1 and B/D 2.

20

> Both the step in brokers B/D 1 and B/D 2 should submit the Notice of Execution (buy) with XYZ for the trades stepped out in their favour and for which the TFM processor has sent a Notice of pending transaction.

> B/D 1 will submit the Net Proceeds details for 10,000 shares, B/D 2 will submit the Net Proceeds details for 20,000 shares and XYZ will submit the

25

Net Proceeds for the remaining Allocations of 70,000 shares. They will also submit the settlement details for these Allocations respectively.

> ABC (IM) will submit the Net Proceeds details for all the Allocations and the GCs for the allocated client will submit the settlement details.

> The Broker-to-Broker deal between B/D 1, B/D 2 and XYZ will be treated

30

like any other Broker-to-Broker deal. The TFM processor will create this

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Broker-to-Broker deal based on the profile settings of Broker XYZ, B/D1
and B/D2.

Percentage Allocations

5   The TFM processor need not support percentage Allocations.
Allocations may be received as an absolute quantity.

Variations

The impact of various transaction types during the Allocation process
10   are as follows:

Pre-Allocated Trades

The IM and the B/D will indicate in their respective BON and NOE
messages that the trade is a pre-allocated trade and then the Allocations will be
submitted by the B/D. The B/D will submit the list of Allocations to the TFM
15   processor on behalf of the IM, if the B/D has an agreement to do so with the
IM. If the B/D submits Allocations on a trade that has not been indicated as
pre-allocated, the allocation message will be rejected by the TFM processor.
Typically for basket/portfolio or program trades, the B/D will submit the
Allocations. The B/D submits the Allocations to the TFM processor for the
20   trades for which it has received Allocations outside the TFM processor
environment from the IM.

The B/D can submit the Allocations to the TFM processor either with
the Notice of Execution as a multi-part message or by a separate message. The
B/D can also submit Net Proceeds along with these Allocations. For a given
25   trade, the Allocations can come from either the IM or the B/D. However, there
will be no possibility of allocations coming from both the IM and the B/D (i.e.,
some of the Allocations coming from the B/D and remaining coming from the
IM). If the IM submits Allocations for a trade that has been identified as pre-
allocated, the Allocation message will be rejected by the TFM processor.

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Similarly, if the B/D submits If the TFM processor receives Allocations for a trade that has not been identified as a pre-allocated trade, the TFM processor will reject the Allocations.

The Allocation details coming from the B/D will have the details of the
5   IM Client Account, but the B/D may or may not provide some details of Allocations (i.e., the GC Id, the GC Client Account Number, commission type, Broker of Credit, etc). The TFM processor, on receipt of Allocation details from the B/D, will forward the incomplete Allocations to the IM. The IM will complete and enrich the Allocations by submitting a new Allocation message
10   with the particulars of the GC Id, the GC Client Account Number, FX-related instructions, Commission type, etc. This will complete the Allocation process. The IM cannot change the quantity of the Allocations submitted by the B/D.

The B/D can also submit a complete Allocation message. If the B/D has submitted the Allocations, complete with the GC particulars, the TFM
15   processor will send a Notification of Allocations to the IM. With reference to FIGs. 13 and 14, the B/D can replace the Allocation particulars it has submitted. However, the IM cannot replace the quantity of the Allocations submitted by the B/D.

Broker-to-Broker Trades

20   The aforementioned allocation process need not be utilized for Broker-to-Broker Trades. Instead, the TFM processor proceeds directly to the net proceeds and settlement details matching processes for Broker-to-Broker trades.

Fund-to-Fund Trades

25   A Fund-to-Fund trade is reported to the TFM processor as two independent trades with a common link reference number and a common B/D. The TFM processor will receive Allocations from the IM and process them like any other institutional cross-border trade. No process change is envisaged for Allocation processing for fund-to-fund trades. This information flow process

50

(refer to FIG. 15) enables Allocations on the buy side of the fund-to-fund trade, and Allocations on the sell side of the fund-to-fund trade, to be cleared by an agent of the IM (common Virtual Broker).

Basket/Portfolio or Program Trades

5   This trade type carries a unique basket reference number. The trade details relating to every security comprised in the basket will be linked with this basket reference number given by the B/D. The IM provides allocations on an absolute basis for each security contained in the basket. Each allocation message has the particulars of the separate securities contained in the basket.

10

3. Net Proceeds Processing

Subsequent to the submission of allocations, the IM and the B/D submit the net proceeds details to the TFM processor. There can be a third-party substitution on behalf of the IM or the B/D. The IM and the B/D calculate the

15   net proceeds for each allocation to the block trade. The net proceeds are computed after adjusting for various charges such as commissions, fees, taxes, other, etc., from the gross proceeds. The net proceeds from the IM and the B/D are matched either exactly or within tolerances before they are released to the local market. The approach to tolerances respects the operational preferences of

20   as many parties as possible while at the same time enabling the maximum number of transactions to flow through the system without intervention. The optimal approach also limits the number of required adjustments to internal records, particularly if such adjustments are not material in nature:

25   TFM processor Functionality

The TFM processor accepts and matches the net proceeds submitted by both the IM and the B/D. The net amounts can match within market and user tolerances set by the participants. If a user tolerance match is outside the market tolerance, then the non-prevailing party will be informed of the

prevailing amount and one net amount figure is released to the local market. This will ensure that the trade matches in the local market. The TFM processor will not change the underlying details such as commissions, fees, taxes, or the like. The TFM processor notifies the affected party of the net amount change so

5   that they can adjust their internal records accordingly. In such cases, the TFM processor will populate a field indicating the amount of the net amount difference. This will provide the participant with the discretion to adjust elements of its internal records (commissions, fees, taxes, etc.) as is appropriate.

10

Input Information

The information flow diagram of FIG. 16 sets forth illustrative information received by the TFM processor from the IM and the B/D pursuant to the Net Proceeds Matching Process. This information informs the TFM

15   processor of the net proceeds details. The B/D and the IM can submit net proceeds details for some or all of the Allocations as part of a single message or through multiple messages.

Net Proceeds Message Acceptance

20   The TFM processor timestamps the incoming Net Proceeds details on receipt and assigns a unique receipt reference number for the message. The TFM processor also validates the message for syntax and performs the necessary edit checks. If there are any errors detected during the syntax or edit checks, the TFM processor sends an error message indicating the reasons for

25   error to the sender of the message. The TFM processor also performs the necessary mathematical checks to ensure the accuracy of the information submitted by the participants (i.e., Net proceeds equals gross proceeds plus or minus all charges such as commissions, fees, etc., depending on the whether the IM is buying or selling.)

30   The TFM processor also computes the gross proceeds for the allocation

based on the price for the block trade and the allocated quantity. The TFM processor will validate if the computed gross proceeds amount is the same as the one specified by the participant. Since the price can be quoted with a precision of 10 decimal places and the gross proceeds can only be specified with a precision that is the maximum allowed for the settlement currency, due to rounding errors the comparison may not be exact. The TFM processor will compare the gross proceeds computed and the one supplied by the participant within a tolerance value that will address this rounding issue. If the comparison within the tolerance value fails the TFM processor will reject the net proceeds.

Net Proceeds Match

If both the syntax and edit checks are successful, the TFM processor attempts to match the net proceeds amounts submitted by each party at the allocation level.

The following fields are used by the TFM processor to compare the net proceeds details at the allocation level:

➢ TFM processor Match Reference Number

➢ Allocation Sequence Number

➢ IM Client Account Number or GSTPA Account Number

➢ Allocation Quantity

The above comparisons look for exact matches. In addition, the following field is matched, either exactly or within tolerance, at the allocation level:

➢ Net amount

For purposes of the match, the net amount in settlement currency is used.

The charge types (i.e., Commissions, Taxes, Fees, Stamp Duty and other charges) are not matched but are available to assist with repairs in the event of a mismatch of the net amounts.

Tolerance Match

Tolerance matches are performed at two levels:

- Market (Maintained by a TFM processor administrator, for every settlement location/settlement currency combination)

- Participant /User

5   - Bilateral   (Maintained by a participant for specific counterparts)

        - Unilateral (Maintained by a participant for all counterparts)

The tolerances for the net proceeds match may be percentage based, absolute or a combination thereof. In a combination situation, tolerance is a

10   percentage of the settlement amount subject to a limit in absolute value for the settlement currency. For example, the tolerance can be specified as follows: Percentage tolerance: 0.1% subject to an upper limit of 50 USD.

Market Tolerance Match

15   A key feature of the TFM processor is that the net amount released to the local market will match within local market tolerances. Therefore, net amounts are first matched based on market tolerance. The market tolerance is maintained at the following level:

- Settlement Location

20   • Settlement Currency

If the net amounts match within the local market tolerance, the trade allocation flows through the system even if the net amounts and underlying details are slightly different. This will ensure that the trade allocation will match in the

25   local market and will avoid a situation where one party will need to adjust its internal records for immaterial discrepancies. The TFM processor will use the settlement location specified on the NOE to determine which market tolerance to apply.

However, during the settlement details enrichment process, a settlement

30   location other than the one specified in the NOE may be agreed upon between

54

the B/D and the GC or the GC could propose a bridge location that is compatible. If a settlement location is proposed by the GC which is different from the one specified in the NOE, and the net proceeds have matched within market tolerance, then the TFM processor will re-attempt a net proceeds match

5   with the details of the GC's proposed different settlement location or with the details of the bridge between the GC's proposed location and the settlement location specified by the B/D in the NOE. The TFM processor will only re-attempt the Net Proceeds match if the market tolerance for the new settlement location is lower than the market tolerance for the previous settlement location.

10

Example 1

For a trade allocation,

Buyer Amount is 500

Seller Amount is 525

15   *Market tolerance is 25*

This is treated as a MATCH.

Example 2

For a trade allocation,

20   *Buyer Amount is 500*

Seller Amount is 530

Market tolerance is 25

This is treated as a FAILED MATCH within market tolerance. However, they may match within user tolerance established in the participant profiles of the

25   *buyer and the seller.*

User Tolerance Match

User tolerances are specified in participant profiles. Participants' tolerances will be the same or larger than market tolerances. If the net amounts are within user tolerances, the trade allocation flows through the system. FIG.

30

55

17 is a Prevailing User Tolerance Decision Table for determining the tolerance to be applied on the buyer's and the seller's side for the purpose of matching the net proceeds within a user-defined tolerance.   The decision table of FIG. 17 should be utilized because none, one, or both of the following user tolerance
5   values may be specified for the buyer and the seller:

- Bilateral tolerance

- Unilateral tolerance.

The following examples illustrate the manner in which the Prevailing User Tolerance Decision Table of FIG. 17 may be employed:

10

Example 1

Buyer A has set the following in the participant tolerance profile:

Bilateral tolerance value for Seller B for the net proceeds: 50 USD

Unilateral tolerance value for the net proceeds: 30 USD

15

Seller B has set the following in the participant tolerance profile:

No bilateral tolerance value set for Buyer A for the net proceeds

Unilateral tolerance value for the net proceeds: 25 USD

20   *As per the above decision table, the following tolerance values are applicable:*

Buyer A: 50 USD

Seller B: 25 USD

Example 2

25   *Buyer X has set the following in the participant tolerance profile:*

No Bilateral tolerance value set for Seller Y for the net proceeds

Unilateral tolerance value for the net proceeds: 25 USD

Seller Y has set the following in the participant tolerance profile:

30   *No Bilateral tolerance value set for Buyer X for the net proceeds*

No Unilateral tolerance value set for the net proceeds

As per the above decision table, the following tolerance values are applicable:
Buyer X: 25 USD

5   *Seller Y: 0*

If there is a match within user tolerance, the TFM processor will ensure that the same net amount will be released to the local market for both the IM and the B/D. If a match of the net amounts occurs within user tolerances, but not

10   exactly, the TFM processor will indicate the net amount difference for the non-prevailing party.   The non-prevailing party will be made aware of the discrepancy so that they can adjust their internal records.   For this purpose, each participant will specify one of the following three preferences in their profiles:

15   1. Always use my amount in the event of a match within user tolerance (Mine)

2. Always use my counterpart's amount in the event of a match within user tolerance (Counterpart's).

3. I am neutral as to which amount prevails (Neutral).

(It is recommended that B/Ds set their preferences to Neutral.)

20

FIG. 18 is a decision table for determining the prevailing amount of the trade and the match status for each of various user tolerance match results. The various scenarios have been explained with examples, which are referenced in the table.

25   FIG 19 is a flowchart that depicts the Net Proceeds Matching Process as implemented by the TFM processor.

FIGs. 20-39 set forth examples of various Net Proceeds Matching Process results as determined by the process of FIG. 19.   Basically, if the matching process "fails", the TFM processor stores the net proceeds details

30   received and the allocation with a status of "Net Proceeds Match Fail." The

TFM processor notifies both parties about the match failure and the need to correct the Net Amounts.

If the comparison succeeds, then the TFM processor stores the details of the net proceeds details received and the allocation with the status as "Net Proceeds

5   Matched."

If there is no Net Proceeds message available for the trade allocation from the counterpart, depending on the processing preferences of the counterpart, the TFM processor may send a notice of pending transaction for Net Proceeds.

10   **Outputs**

The following are possible outputs generated by the TFM processor pursuant to the Net Proceeds Matching Process:

➢ Error Messages indicating the reasons for failure will be sent if there are any validation failures along with the net proceeds details received by the

15   TFM processor.

➢ A notice of pending transaction for Net Proceeds will be sent to the counterpart if the counterpart has not submitted the net proceeds.

➢ A Net Proceeds acceptance message will be sent to the IM or the B/D when the Net Proceeds are accepted by the TFM processor along with the details

20   of Net Proceeds message received.

➢ An Error message indicating reasons for error will be sent if there are any match errors and there will be a comparison of all the components that constitute the net proceeds.

➢ A status change message will be sent to the IM and the B/D once all the Net

25   Proceeds have matched.

If there is a match, the following notification is sent to the IM, the B/D and the GC:

➢ Trade Match Reference #

30   ➢ Trade Reference #

       ➢ Trade Version #

       ➢ Allocation Sequence #

       ➢ Trade Allocation Version #

       ➢ Net Proceeds Version #

5   ➢ IM Client Account #

       ➢ GSTPA Account #

       ➢ Allocation Quantity

       ➢ Settlement Currency

       ➢ *Prevailing Party Identification

10   ➢ *Prevailing Net Amount for the Allocation

       ➢ *Prevailing Party's Gross Amount for the Allocation

       ➢ *Prevailing Party's Broker Commission

       ➢ *Prevailing Party's Accrued Interest

       ➢ *Prevailing Party's Local Taxes

15   ➢ *Prevailing Party's Stamp Duty

       ➢ *Prevailing Party's Registration Charge

       ➢ *Difference between the Prevailing Party's Net Amount and Party's Net Amount

20   *In the case of the exact match, the IM and the B/D will get their own amounts and the difference amount will be set to zero and the GC will get the IM's amounts. In the case of a match within market tolerance, the IM and the B/D will get their own amounts and their counterparts amounts to facilitate reconciliation and the GC will get the IM's amounts.

25

Variations

    There are variations inherent in the Net Proceeds Matching Process for different types of transactions. The following types of transactions illustrate some of the possible variations:

Broker-to-Broker Trade

As there are no allocations in Broker-to-Broker trades, the TFM processor will create a dummy allocation. The B/Ds could have given the net proceeds details along with the block trade details as part of a multi-part
5   message. In this case the TFM processor, after successful acceptance of the block trade details, will invoke the net proceeds process.

4. Accounting Information Processes

Many of the data elements used to effect the settlement of a trade are
10   also used for accounting purposes. In addition, there are a very small number of optional data elements that are specific to the accounting function. The IM supplies these data elements along with a Block Order Notification message. The IM may also send an Allocations message and/or a Net Proceeds message to the TFM processor, and/or the IM may receive an Allocations message
15   and/or a Net Proceeds message from the TFM processor. Using the information (BON, allocation, net proceeds, accounting details), the TFM processor creates an "accounting message" to route the accounting information to the Accounting Agent at, or before, the deadline. The Accounting Agent is an entity that provides accounting services to a Portfolio, a Fund or a Client
20   that is served by the IM. There could be more than one Accounting Agent (Interested Party) associated with an account. Accounting data may also be delivered to other interested parties, who are identified by the IM in its profile.

Accounting Deadline

25   The IM and Accounting Agent maintain deadlines in their profiles for sending the accounting information to the Accounting Agents. Refer to the Profiles section and the Alert and Deadline Processing section for the details on deadlines for accounting information.

Accounting Data

5   ➢ Input Message

The IM will send the accounting data at the level of the BON, Allocations and
Net Proceeds messages. The TFM processor does not perform a validation
check on these accounting-specific fields, except for syntax. The input data for
accounting is included with the BON, Allocations and Net Proceeds message

10   inputs described in the earlier sections.

➢ Output Message

The TFM processor sends the accounting information to the Accounting Agent
before or at the deadline set for the IM's client. The accounting information

15   includes the accounting data that is sent by the IM as well as the TFM
processor-enriched data for the trade, the allocation and the net amount details
(quantity, price, gross amount, net amount, commission, fees, tax and interest,
etc.) Please refer to Appendix C for the data elements that will be sent to the
Accounting Agent.

20

The accounting data is sent to the Accounting Agent at or before the deadline
in the following cases:

➢ The net proceeds have been matched in the TFM processor and the IM has

25   provided the accounting information. This is referred to as the confirmed
reporting to the accounting agent. (This information is sent immediately,
prior to the deadline.)

The IM has submitted the allocations, the accounting information and the net
proceeds. In this case, the Accounting information is released to the agent

30   based on the IM's data. The message to the Accounting Agent will indicate that

the net proceeds have not matched. This is known as unconfirmed (soft)
reporting to the Accounting Agent. This information is sent at the deadline
according to the IM's profile.

5   ➤ The accounting information and the net proceeds details have been
        submitted, however, the net proceeds of the B/D and the IM do not match.
        In this case the TFM processor releases the accounting information based on
        the IM's net proceeds data, or the B/D's net proceeds data, depending on what
        the IM has set in the profile for that client and Accounting Agent. The TFM
10   processor sends a warning message to the IM and the Accounting Agent that
        the net proceeds have not matched (This information is sent at the deadline
        according to the IM's and Accounting Agent's profiles.) This is also referred to
        as unconfirmed (soft) reporting to the Accounting Agent.

15   ➤ In the case where the net proceeds have not yet matched, the TFM
        processor will send a confirmed reporting to the Accounting Agent once the
        net proceeds match. The Net Amounts could change the financial
        components of the settlement data and thus also impact the accounting data.
        When this occurs, the changed details are released to the Accounting Agent,
20   and will be identified as a change to the previous unconfirmed reporting
        done by the TFM processor. (This will lead the Accounting Agent to
        reverse the trade in its records and to re-book it.)

     ➤ If there are any replacements or corrections to a trade, the allocation, or the
        net proceeds details, the changed details are notified to the Accounting
25   Agent. The TFM processor will also clearly indicate if the change is on an
        unconfirmed (soft) reporting or a confirmed reporting done by the TFM
        processor. This may cause the Accounting Agent to reverse the trade in its
        records and to re-book it.

     ➤ The IM can unilaterally replace the accounting-specific data. The TFM

62

processor then releases the replaced message to the Accounting Agent.
(This will lead the Accounting Agent to reverse the trade in its records and
to re-book it.)

5   **Identification of the Accounting Agent**

Some of allocations will not require additional accounting data, nor will
there be an Accounting Agent identified for them. For those allocations that
require accounting data to flow to an Accounting Agent, it is necessary to
identify the specific Accounting Agent related to the account in the allocation.

10 There could be more than one Accounting Agent associated with an account.
This can be done either by having the IM maintain such a list in the profile
(account by account), or by asking the IM to provide the Accounting Agent's
identifications and deadlines with the allocation.

The TFM processor timestamps the incoming settlement details message

15 upon receipt and assign a unique receipt reference number for the settlement
details. The TFM processor also validates the message for syntax and performs
the necessary edit checks. If there are any errors detected during the syntax or
edit checks or context validation, the TFM processor sends an error message
indicating the reasons for error to the sender of the message.

20 If the validation is successful, the settlement details are accepted and the TFM
processor proceeds to match the settlement details if the corresponding
settlement details have been provided by the counterpart.

Matching Process

25 The matching block will be used to compare the settlement details at an
allocation level; otherwise the following fields must be used for matching:

➢ Trade Match Reference Number
➢ Allocation Sequence Number

63

> IM Client Account Number

> Allocation Quantity

> Security identification

> Settlement Date

5   > Settlement Currency

> Method of settlement

If the above comparisons result in an exact match, then the TFM processor performs the comparison of the settlement location details provided by the B/D

10   and the GC.

> If the B/D and the GC have specified the same settlement location then the TFM processor sets the status of the allocation as settlement channel compatible, provided that the settlement details confirm to the settlement

15   location characteristics (e.g., DVP in France against Euro is valid; not against USD). Further, if the Agents at the settlement locations are the same, the "SAME AGENT" flag is turned on. This informs the participants that the settlement may happen in the books of the same local agent at the settlement location.

20

> If the settlement location is not the same, the TFM processor performs a compatibility check for a possible Bridge Link between the locations for the settlement currency and security categories by referencing the TFM

25   processor's settlement bridge table and the profiles of both the B/D and the GC.

The following information is maintained for the Settlement Channel Compatibility in the TFM processor:

30

> Settlement Location Identifier

> Other Compatible Settlement Locations (Settlement Bridges)

> For each bridge:

5
>   Supported settlement currencies

>   Category of the securities supported

>   Securities agent and account details

>   Cash agent and account details

>   Transaction type codes used for the Bridge Settlement between the
10   Settlement Locations

If the settlement channel compatibility is established through a Bridge Link, the allocation status is set to Settlement Channel Compatible.

15   The TFM processor modifies the settlement details as provided by the B/D and the GC to reflect the conditions of a particular Bridge Link. These include modification of the following details:

> Addition of Bridge Securities Agent details

20   > Addition of Bridge Cash Agent Details

> Addition of Transaction Code for the Bridge settlement

If there is no bridge settlement channel compatibility between the settlement locations for the settlement currency and security category, then the allocation
25   status is set as Settlement Channel Incompatible. The B/D and the GC may change the settlement location appropriately to make the settlement channel compatible.

In certain markets, the B/Ds may need the settlement details from the GC
30   before they can submit their part of the settlement details. B/Ds in their profile

65

will specify for each settlement location whether they need the settlement details of the GC before they can submit their settlement details.

5   If the B/Ds have set-up their profiles to indicate that the TFM processor need to send them the GC settlement details once the settlement details are received from the GC, the TFM processor will "push" a message to the B/D with the details of GC Settlement Details.

Example:

10

The B/D sells a French bond and wants to deliver from its Euroclear account 6789.
The Settlement Location is Euroclear.

15   The settlement details from the B/D will indicate:
DVP
Euroclear (location)
Euroclear (agent)
Account 6789

20

The GC wants to receive securities in its account ABCD at Paribas. The trade is for the benefit of client account 1234 at the GC indicated in the allocation.

The Settlement details from the GC will be:

25   DVP
France
Paribas
Account ABCD

30   The Bridge table confirms that this transaction in Euros can be conducted

through the Bridge from Euroclear to France, using the Euroclear correspondent in France (Societe Generale).

Account XYZ of Euroclear at Societe Generale for cash and securities.

5   As a result of this, an instruction will have to be sent by the GC in the SWIFT format that includes the following information about Bridge details:

Receive

From Societe Generale

10 . Account XYZ

By order of 6789 at Euroclear

French Bond

Against XXXXEuros

In favor of 1234 at GC

15

The B/D will send instructions to Euroclear as follows:

Deliver

To Paribas

20   Account ABCD

In Favor of 1234 at GC

French Bond

Against xxx Euros

By order of 6789 at Euroclear

25

As can be seen, the settlement details of the B/Ds AND information from the bridge table were used to construct these messages.

In the case of DSP trades, the TFM processor will generate only the securities

30   movement instructions and not the cash movement instructions. In the case of

67

FOP trades, TFM processor will generate only securities movement instructions.

5 **Output**

The following are the outputs from this business function. The message is routed to the appropriate participant access module (participant AM) based on the routing profile set by the participant. If the substituting party has submitted the message, then the message is sent to the substituting party.

10

➢ **Success message:** is sent, along with the settlement details received by the TFM processor, if the participant has specified in the profile that they wish to receive these messages.

15

➢ **An Error message:** indicating the reasons for validation failure, is sent if there are any validation failures, along with the settlement details received by the TFM processor.

20 ➢ **GC Settlement Details:** is sent to the B/D, if the B/D has indicated in its profile that it needs the GC Settlement details prior to submitting its settlement details.

➢ **Settlement Match Notification:** if settlement details match, a message is
25 sent to both the GC and the B/D. Any match warnings and changes to the settlement details on account of bridge settlement are also notified to the participants along with the match notification message.

➢ **Settlement Release Details:** a notification message is sent to the B/D and
30 the GC with settlement release details.

> If all the allocations of the block trade settlement details have matched, the TFM processor sends a status change notification to the B/D and the IM stating that all the allocations settlement details have matched.

5

Settlement Match Notification

10   If settlement channel compatibility is achieved, the following notification message is sent to the GC and the B/D

> Trade Match Reference #
> Trade Reference #
15   > Trade Version #
> Allocation Sequence #
> Allocation Version #
> Settlement Details Version #
> IM Client Account #
20   > Allocation Quantity
> Settlement Details
> Identification of the clearing organisation
> Settlement Currency
> Settlement Location of GC
25   > Settlement Location of B/D
> Settlement Type Flag (FOP or DVP)
> Same Agent Flag

> Local Agent Details of the B/D
30   > Security Agent at Location

> Local agent identification with the clearing organisation

> Securities Account at Agent

> Cash Agent at Location

> Cash Account at Agent

5

> Local Custodian details of the GC

    > Security Agent at Location

    > Local agent identification with the clearing organisation

10 > Securities Account at Agent

    > Cash Agent at Location

    > Cash Account at Agent

> Transaction Code to indicate Bridge Settlement

15 > Warning Field

    > Warning Code

Settlement Release Details

20

The TFM processor sends a notification message for the settlement release details at an allocation level to the GC and to the B/D. This message will be sent once the Allocation has been matched for both the settlement details and Net Proceeds Details.

25

The Settlement Release message provides the following details.

> Trade Match Reference #

> Trade Reference #

> Trade Version #

30 > Allocation Sequence #

70

> Allocation Version #

> Settlement Details Version #

> IM Client Account Number

> Security Identification

5   > Trade Price (Seller's Price)

> Allocated Quantity

> Trade Date

> Settlement Date

10 > Settlement Details

> Identification of the clearing organisation

> Settlement Currency

> Settlement Location of the GC

> Settlement Location of the B/D

15 > Physical Address

> Transaction code if there is a Bridge Settlement

> Settlement Type Flag (FOP, DSP or DVP)

> SAME AGENT flag

> Free flow information

20

> Prevailing party's Settlement Amount details (if net proceeds match within
tolerance) or IM's Settlement Amount details

> Gross Amount

> Net Amount

25 > Components of the Net amounts

> Difference between the IM's amount and the B/D's amount

> Local Agent Details of the B/D

> Security Agent at Location

30 > Local Agent identification with the clearing organisation

> Securities Account at Agent

> Cash Agent at Location

> Cash Account at Agent

5   > Local Custodian details of the GC

> Security Agent at Location

> Local Agent identification with the clearing organisation

> Securities Account at Agent

> Cash Agent at Location

10   > Cash Account at Agent

Note – These outputs will be adapted to reflect the bridge information

Variations

15 ### Broker-to-Broker Trade

In Broker-to-Broker trades there will be no allocations. Both B/Ds can also
provide the Settlement details as part of the NOE message or through a
separate message. There is no specific process change.

20 ### Fund-to-Fund Trade

The Fund-to-Fund trade is reported to the TFM processor as two independent
trades that can be linked with a common link number. Two legs of these trades
are settled via the intermediate counterpart. No process change is envisaged for
25 settlement details processing.

6. Forex Processing

IMs carry out Forex (Foreign Exchange) Processing on behalf of their
clients to handle either the settlement required for the security trades or
independent of any security trades. Even though the TFM processor will not

72

support Forex trades for regular processing, like Block Trade, Allocations, etc., this information needs to flow to the GC and Accounting Agent for information and action.

5   **TFM processor Functionality**

The TFM processor will receive a free-flow Forex message from the IM. This · message will have the necessary details about the Forex carried out by the IM, the clients on whose behalf the Forex has been carried out and if necessary any ˙ associated security transaction reference numbers. The information supplied by

10   the IM will be similar to the MT 304 message format. The format has been adjusted for the TFM processor requirements.

IMs will be able to send the spot and the forward Forex contracts to the TFM processor. For the forward contracts participants will need to submit the opening, partial closing (if any) and final closing of the forward contracts as

15   separate trades with unique Forex trade reference numbers. The IM must always provide complete information in the opening and closing of Forex contracts. The TFM processor will not carry out any validations between the opening and closing contracts and will not carry forward any information between the opening and the closing Forex trades.

20   The information supplied by the IM will be sent to the GC and the Accounting Agent associated with the Client.

Input Information

25   The following is the information provided by the IM to inform the TFM processor about Forex information.

The following table describes the information provided by the IM:

30   **FIG. 42**

The TFM processor will validate the input message for content and format. On successful acceptance of the Forex trade message, the TFM processor will send a similar Forex trade notification message to the GC and the Accounting Agent

5   identified for each allocation in the message.

The outputs to the GC and the Accounting Agent will be at the level of each individual allocation of the Forex trade.

10   **Outputs**

The following are the outputs from this process:

➤ A success message to the IM indicating that the Forex trade has been
15   accepted by the TFM processor

➤ An Error message to the IM for each Forex trade allocation that fails validations

20   ➤ A Forex notification message to the GC and the Accounting agent for each allocation associated with the Forex trade.

7. Cancellations, Replacement and Deletion Processing

25   **Principles**

●   A transaction should only be cancelled as a last resort because:

—   This will create extra work for everyone who has worked on the trade to re-instate their information on a new transaction

—   Creating a new transaction with a new participant trade reference
30   number would break the audit trail and limit the value of the MIS

74

provided by the TFM processor (e.g., all timers would be reset). This is true even at the NOE / BON level where there may be price or commission changes which do not invalidate the entire transaction

5   • The normal process for agreeing changes to matched trades will rest outside of the TFM processor with only the final results flowing through (i.e., in most cases telephone conversations are required to negotiate a change)

     • Non-matching fields are as significant as matching fields since they are
10   only included in the TFM processor so that they can be communicated between parties for subsequent action

     • All changes to a message (replacement, deletion and cancellation) will be immediately communicated by the TFM processor to all parties who received the original message

15   • The functionality of the TFM processor should not be driven or constrained by the systems capabilities or working practices of the participants

     • Only the originating party of a message should be able to change it.

20   **Options**

         The IM or B/D can cancel a trade, which terminates the transaction history in the TFM processor. Data is resubmitted with a new participant trade reference number. This function is used when a trade was created in error or when a trade has matched with the wrong counterpart and needs to be re-
25   entered with the correct counterpart. However, all participants may not have the capability in their internal application systems to effect a replace when only · some of the particulars of the trades need to be modified. Some participant may also use cancellation and resubmission to correct any mismatches. These participants' internal application systems will generate a cancellation and

resubmission to effect the modification. In such cases, to support participants in tracking MIS, the TFM processor will allow the participants to link new trades to an existing cancelled trade. The TFM processor will inform counter parties and GC about the linked cancelled trade reference number. This will allow

5   participants to keep track of the cancellation and the resubmission of the trades.

The IM, the B/D or the GC can delete a single message they have sent at the level of an individual allocation. This option applies to all allocation level messages (Allocations, Net Proceeds and Settlement Details) and removes the message leaving all others intact and maintains the audit trail in terms of the

10   participant trade reference number. However, deletion of allocations will cascade to Net Proceeds and Settlement Details as well.

The IM, the B/D or the GC can replace a single message they have sent with an entire new message. This option applies to all messages (NOE, BON, Allocations, Net Proceeds, Settlement Details, etc.) and changes one message

15   at the level of an individual allocation leaving all others intact and maintains the audit trail in terms of the participant trade reference number. In this case the entire message is replaced with a new one (This function will not support changing a single field within an allocation although clearly users will edit single fields on their workstation before resubmitting entire messages.)

20   Finally, participants might need to revoke a requested cancellation when it has not taken effect and is awaiting a corresponding cancel from counterpart. This revoke can only be used when approval is pending from counterpart.

Approvals and Paired Vs. Matched

25   The cancellation of a trade requires approval after the trade has been "Matched." The submission of the cancellation request by the counterpart will be treated as the approval of the cancellation request. If participants mistakenly cancel the wrong trade, they will have the provision to revoke their

76

cancellation.

For replacement or deletion, there will be no special approval messages supported by the TFM processor. The party making a change will submit the replacement message that the TFM processor will attempt to match with the

5 existing counterpart's message. If a match does not occur, the TFM processor will move the trade or the allocation to a "paired" status. When "paired," if the counterpart submits a matching replace/delete message then the new values will be deemed to have been 'approved' and the new messages will update the TFM processor. The trade or the allocation will now change from "paired"

10 status to "matched" status. All alert and deadline processing will continue to apply for a paired trade.

If the block trade is paired, subsequent matches will not be attempted by the TFM processor. For example, if the Block Trade is paired due to a price

15 change, new net proceeds submitted by the participants on the paired trade will not be matched. This match will be triggered once the block trade becomes matched (i.e., due to a matching replace from the counterpart).

Cancellation of Trade

20 The IM and the B/D can cancel the Trade at any time during the life cycle of the trade. However, a cancellation request needs an approval from the counterpart, if the trade has been matched.

- The format of the cancel message will have the complete format of the NOE or BON message with function of the message as "CANC" and will
25   trigger a cancellation.

- The cancellation of an unmatched trade becomes effective immediately with no approval needed from the counterpart.

- In the Matched Trade Status, the cancellation submitted by one party needs
30   to be approved by the counterpart. The intermediate status of the trade will

be "Matched Cancellation Requested" and will be set to "Cancelled" only when approved. The second cancel trade message submitted by the counterpart is treated as an approval to the first cancel trade message and the trade status is set to "Cancelled."

5   • The details of the trade submitted as part of the Cancel Trade will be compared with the existing trade details to validate the integrity of the Cancel.

• All GCs and the interested parties pertaining to the allocations of the trade are notified of both cancellations requested by IMs and the Cancellation of the trade by the TFM processor after approval by the B/D. The GC and the Interested Parties will not be notified of any cancellations requested by the B/D. However, the GC and the Interested Parties will be notified of the cancellation of the trade after the IM approves the cancellation.

• The Cancellation status of the trade flows to the individual allocations.

15

Additional Features:

• **Revoke a Cancellation:** A cancellation submitted by a party can be revoked by the same party by using "REVC" in the function of the Trade Message (NOE or BON). The revoke will be effective only when the approval is pending (Trade status = "Matched Cancellation Requested") and not after actual cancellation has taken place. If a cancellation is revoked all the participants who have received prior information about the trade and its allocations will also be informed about the revocation of the cancellation request.

25

• **Reject an unmatched alleged trade:** Cancellation of Unmatched trades which are alleged against a participant can be done by using "REJM" in the function of the Trade Message. A Trade in this state is "Rejected." The final cancellation of the trade will be after an approval via a cancellation message from the participant alleging the trade. This will be used for the

DKs. Similar to a revoke of a cancellation, the rejection of an alleged trade can also be revoked by the party submitting the rejection against the unmatched alleged trades.

5   • **Dispute an unmatched alleged trade**: Dispute of Unmatched trades which are alleged against a participant can be done by using "REJM" in the function of the Trade Message. In addition to this the disputing participant can provide a reference to one of their unmatched trades indicating that the alleged trade should match against this unmatched trade.

10

If the IM has requested cancellation, downstream processing of the TFM processor will be effected by way of output messages generated from the TFM processor. Accounting information and settlement release will NOT be sent once the IM has requested for cancellation. The remainder of the outbound

15   messages will always contain the Trade/allocation status. The revoking of cancellation will resend the accounting information to the accounting agent.

The following diagrams explains the various cancellation possibilities and their associated message flows:

20

Case 1:

A B/D wants to cancel a trade that has not been matched. In this case the B/D has submitted an NOE to the TFM processor (1). The TFM processor has accepted the NOE and has created a trade in an "unmatched" status. (2). The

25   TFM processor has also sent an Alleged NOE notification to the IM (3). Before the IM submits a BON, the B/D realises that the trade is a wrong trade and issues a cancellation (4). The TFM processor immediately cancels the trade as it is in "Unmatched" status and sends a cancelled notification to the B/D (5) and an alleged trade cancelled notification to the IM. FIG. 43 illustrates the

30   flow of information for case 1.

Case 2:

An IM wants to cancel a trade that is matched and for which allocations are complete. If the B/D were to initiate the cancellation, the GC will not be
5   notified of the cancellation request. Similarly if any interested parties like accounting agents have received information prior to the cancellation, then the TFM processor will treat them similarly to the GC as illustrated in the diagram. FIG. 44 illustrates the flow of information for case 2.

10 **Case 3:**

The B/D has submitted an NOE against the wrong IM. The IM DKs the NOE. The B/D cancels the NOE. FIG. 45 illustrates the flow of information for case 3.

15 **Case 4**

The B/D has submitted an NOE with the wrong price. The IM submits a BON with the right price. The IM submits a dispute message against the NOE indicating the reference # of the BON.   FIG. 46 illustrates the flow of information for case 4.

20

Replace Process

The replacement of an individual message will be effective immediately if the message has not been matched. A Replace of an NOE or a BON is possible on
25   an unmatched trade. Similarly, Replace of Allocations is effective immediately if it has not matched on the Net Proceeds or the Settlement Details. A Replace on a matched trade will move the trade into "Paired" status if the replacement message does not match. A Replace on an allocation that is "NP Matched" will move the allocation into "NP Paired." A Replace on an allocation that is
30   "Settlement Details Compatible" will move the allocation into "Settlement"

Details Paired" status. The principle of the replace on the matches at several levels is to retain their matched status or an intermediate status of "Paired."

Replace NOE /BON

5   A Replace on an unmatched trade will be effective immediately. If the TFM processor has sent a notice of pending transaction for the unmatched trade the TFM processor will also send an alleged trade replace notification to the counterpart to indicate the replacement.

A Replace on a matched trade will move the trade into "Paired" status if
10   the new message does not match, otherwise it will remain in matched status. The "Paired" status is indicative that a previously matched trade is now being replaced and should not be matched with a different trade (e.g., if the BON is replaced it should only be matched against the original NOE with which it was paired). Similarly the original NOE should not be paired with a different BON.

15

The following elements of a trade should not be replaced after a match:
- Physical Sender Identification
- Message Type
- Actual Sender Identification
20   - Participant Trade Reference Number
- External Common Reference
- Function of Message
- Transaction Type
- Processing Type
25   - Counterpart Identification
- Buy/Sell Indicator

If any of the above elements change after a match, the participant can cancel the trade and resubmit a new trade.
30   The TFM processor implements procedures to ascertain the integrity of

81

the information that it accepts. For example, Replacement of the Trade
Quantity on an NOE or BON is always checked against the sum of the
allocation quantity if the allocations have arrived. For a partially allocated
trade, the sum of the allocated quantity so far is less than the replaced/revised
5   block quantity. For a completely allocated trade, the sum of the allocated
quantity should be equal to the replaced/revised block quantity. Similarly, the
TFM processor also recalculates the deadlines if any of the parameters'
affecting the deadlines (e.g., preferred settlement location) is changed.

The TFM processor will notify all the participants who have received
10   information about the BON or the NOE about any replacements. Normally the
replacements made by only the IM will be sent to the GCs and the Interested
parties. However, if the B/D replaces the settlement location in the NOE, then
the GC will be notified of the new settlement location.

15   The following cases illustrate various replacement scenarios for NOE and BON
messages.

Case 1:

The B/D submits an NOE with the wrong price. The trade has not been
20   matched with a BON. The B/D submits a replace to correct the price.
Information flow for this scenario is shown in FIG. 47.

Case 2:

In this case the B/D has submitted an NOE with price of USD 75.00. The IM
25   has also submitted a BON with price of USD 75.00. After the NOE and the
BON have matched, the IM wants to renegotiate the price as USD 74.00.
Information flow for this scenario is shown in FIG. 48.

30   **Replace Allocations**

82

The IM can replace the allocations. When the replace/delete is effective, deadlines at the allocation level are either reset in the case of a delete or recomputed in the case of a replace. If the deletion of Allocations changes the trade from fully allocated to partially allocated, then the deadlines at the level

5   of the trade for the Allocation completion are re-instated.

If the allocation quantity has changed, the sum of the allocation quantity will need to be verified to determine if it is less than or equal to the block quantity. If net proceeds messages have already been received for any of the allocations the quantities and account numbers must be checked against the

10 new allocation message to ensure that they are consistent. If not, the status on that allocation must be moved to paired. This indicates that although the net proceeds messages may agree with each other, they do not match the revised overall allocation from the IM.

If the GC is changed and a Settlement Details message has already been

15 received from the original GC, the message will be deleted and the status of the allocation changed to "Settlement Details Unmatched."

Replacements of other fields in the allocation will only flow as notifications to the GC and the B/D or the IM and will not affect trade status. Notification of Allocation Details replacement will flow to the B/D and the

20 GC. If the GC changes, the new GC is also notified.

Replace Net Proceeds/ Settlement Details

- The IM or the B/D can replace Net Proceeds.

- The B/D or the GC can replace Settlement Details.

25 - Originating Party of the Net Proceeds/Settlement Details message can replace its part of the message and the replacement will be effective immediately, if Net Proceeds/Settlement Details have not yet matched with the counterparts.

- The TFM processor will receive the first Replace Net Proceeds/Settlement

30 Details message and store the replacement request of Net

Proceeds/Settlement Details and will notify the counterpart.

- If the allocation message was matched, the allocation will be put to "Net Proceeds Paired" or "Settlement Details Paired" status if the new message does not result in a match. Otherwise it remains in-matched status. The GC
5   receives notification of the net proceeds status change.

- If the allocation status is paired, when the TFM processor receives the second Replace Net Proceeds/Settlement Details message it stores the replacement request of Net Proceeds/Settlement Details from this party and the TFM processor attempts a rematch on the replacement messages.

10 - If rematch of both replacement messages is successful (exact match, no tolerances and no bridges), the TFM processor will notify both parties and set the allocation status to "Net Proceeds Matched" or "Settlement Details Compatible." If the Net Proceeds matched, the GC will also receive a notification message of the replacement.

15 - No Settlement Release will happen on an allocation that is "Settlement Details Paired" or "Net Proceeds Paired."

- No confirmed accounting Information will be sent for an allocation that is "Net Proceeds Paired."

20   **The Deleting Process**

Deleting Allocations

Deletion of individual allocations by the allocating party is unilateral and requires no approval, irrespective of the status of the allocation. Deletion of
25   an allocation deletes the corresponding Net Proceeds and Settlement Details. All parties are notified of the deletion. This option is to be used when the block trade quantity changes or an allocation is invalid and has to be removed. The approval process has been kept outside the TFM processor, as resubmission of net proceeds and settlement details is mandatory for further
30   process flow.

Deleting Net Proceeds/ Settlement Details

Deletion of a Net Proceeds or Settlement Details in an unmatched state is effective immediately.   Deletion of a Net Proceeds/Settlement Details message that has matched moves the allocation to "Unmatched Net Proceeds/Settlement Details" status. The counterpart and the GC (in the case of NP) are notified of the change.   Also, the settlement release and the accounting information will not be generated from the TFM processor.

Messaging impacts due to cancellation/deletion/replacement process

The following are the general principles followed within the TFM processor to notify the counterparts, the GCs and the interested parties about any cancellations, deletions and replacements.

➤ For unmatched alleged trades (after the TFM processor has sent out the Notice of Pending Transaction), counterparts will receive all the cancellations, the deletions and the replacements.

➤ For matched trades, counter parties will receive all the cancellations, the deletions and the replacements so that they can provide the necessary approval.

➤ Counterparts will receive the cancelled, the deleted, the replaced (via a match) notifications once the TFM processor has accepted and processed the necessary approval.

➤ The GCs and the Interested Parties (Accounting Agents) who have been notified of the trade and allocation information will receive the cancellations, the deletions and the replacements carried out by the IM. They will not receive the notification pertaining to the cancellation, deletions and replacements carried out by the B/D. They will receive two when the IM initiates the cancellation or replacement and when the B/D approves the cancellation or the replacement. They will also receive a revoke notification, if the IM decides to revoke their cancellation.

➢ GCs who have been notified of settlement instructions in the 52x, 53x or 54x SWIFT message formats may be sent a cancellation message in the form of MT592 if either the trade is cancelled, (i.e., cancellation initiated by IM or B/D and approved by the counterpart), or when the allocations are deleted by the IM. If there is a replacement of any details pertaining to settlement details such as Net Proceeds, the TFM processor will generate a cancellation in the MT592 SWIFT message format followed by a settlement instruction with the changed details in the 52x, 53x or 54x SWIFT message formats.

Alert and Deadline Processing

Alert and Deadline processing in the TFM processor occurs with respect to two distinct processes:

5   • Settlement

• Accounting

The alert and deadline process responds (and also escalates, if necessary) to meet the earliest timing requirements of both the settlement and the accounting processes. This is true in cases where the information is required for both

10   processes. If information is required for one of the processes only (e.g., net proceeds are required for both settlement and accounting, settlement details are required for settlement only), then the related deadline applies. In this manner, the alert and deadline process establishes the critical path for the submission of all data in the TFM processor.

15   **Settlement**

Alert and deadline processing related to settlement must meet the requirements of the GC and the B/D (or B/D's Agent) in the context of the settlement location involved. Therefore, settlement date and deadline time established by settlement location will serve as the foundation for the alert and

20   deadline process in terms of settlement.

The Deadlines and the associated alerts should be based on settlement date/deadline time minus an amount of time specified by the GC and the B/D in their profiles. The GCs and the B/Ds will also maintain deadlines for cash settlement if the trades are to be settled separately for cash and securities (DSP

25   method of settlement). The deadlines for the cash settlement will be based on settlement date/deadline time minus an amount of time specified by the GC and the B/D in their profiles.

The larger of the amounts of time (i.e., earliest time computed after reducing the amounts of time specified by the B/D and the GC from the

settlement date/deadline time) specified by the GC and the B/D (for both cash and securities) will be used. If this profile information is not available for the GC and the B/D, the system default for the given market will be applied. The deadline for the settlement related information could be expressed by the following formula:

Deadline = Market Settlement Date/Deadline Time – GC or B/D or Generic Specified Amount of Time (for cash and securities settlement)

Market settlement Date/Deadline Time will be based on the settlement currency, instrument type and method of settlement. For example, the Great Britain Market could have different deadlines for settlement currency GBP and USD, different deadlines for equities and fixed income instruments and different deadlines for delivery versus payment and delivery free of payment method of settlement. The deadline in the Great Britain Market for GBP settlement for equities and for delivery versus payment can be 2:00 PM local time on every settlement date.

The amount of time specified by the GC and the B/D in their profiles will initially be based on settlement location. The TFM processor will be designed with the flexibility to specify the amount of time prior to the settlement date/time by settlement currency, instrument type and method of payment.

Even though the alert processing within the TFM processor is based on the earlier of the deadlines set by the B/D or the GC, the TFM processor for MIS reporting to the IM will also track the GC deadlines (i.e., whether the IM has missed the GC's deadline or not). It is logical that the alerts for settlement related processes follow the most likely sequence of participant message submission. For example, alerts regarding net proceeds should be triggered prior to alerts relating to settlement details for a given trade.

Participants may specify the deadline timings in UTC (formerly GMT).

Accounting

The deadline for the submission of the information required for
accounting purposes will be based on trade date/time or Allocation Date/Time
plus an amount of time specified by the Accounting Agent in its profile. The
deadline for accounting purposes can be expressed by the following formula:

*Deadline = Trade Date/Time or Allocation Date/Time + amount of time
specified by Accounting Agent*

The deadline specified by the Accounting Agent will be used by the
TFM processor to carry out any unconfirmed (soft) reporting, if required, for
the Trades and Allocations. Confirmed reporting by the TFM processor will be
initiated once all the information required for Accounting has been submitted
and matched. Confirmed reporting will not be based on any deadline
processing. Confirmed reporting will be done by the TFM processor as soon all
the accounting details are available and the Net Proceeds are matched. It is not
envisaged at this point to have the need for two separate deadlines for
unconfirmed reporting and confirmed reporting. It is likely that Accounting
Agents will specify different amounts of time for different categories of
accounts. For example, the amount of time specified for a mutual fund that
requires a daily net asset value (NAV) calculation will likely be shorter than
that specified for a pension fund with monthly valuation.

Accounting deadlines can also be specified at time of the trade date,
time of the trade date plus a number of days, time of the week and time of the
month for unconfirmed reporting. Accounting Agents will also specify the
reporting period required in the case of non-standard reporting such as time of
the week, etc. For example, an Accounting Agent can specify for an insurance
fund registered in Australia a weekly reporting at 5:00 PM Australian Time on

89

Friday for all trades submitted from the last Friday to the previous Thursday.

Participants will specify the deadline timings in UTC (formerly GMT).

IMs should understand the accounting implications for the different
account categories associated with their clients. IMs will need to specify the

5   Class of Account for each of their clients either at the level of the trade or at the
level of account in their profiles.

The location of the Accounting Agent will also be taken into
consideration. The system will perform escalations based on the time zone of
the Accounting Agent. If an Accounting Agent has operations in multiple time

10   zones, the identification of the accounting agent will have to recognize that fact
through the use of an 11- character BIC. It is possible that in some cases, Trade
and Allocation details will be sent to the Accounting Agent prior to the
completion of the matching process (Soft Reporting).

15   **Alert and Deadline Processing**

Trades are monitored throughout the states of the trade life cycle from the
input of the first information typically an NOE or BON, through to the
Settlement Channel match. Completion of the following different events are
monitored:

20   • NOE/BON Match
          • Completion of Allocation
          • Net Proceeds Match for each Allocation
          • Submission of Accounting Information for each Allocation (Accounting
            Information will be submitted along with regular messages such as

25   BON, NOE, Allocations and Net Proceeds).
          • Settlement Channel Match for each Allocation

When deadlines are established in the TFM processor, the trade record will be
updated with the deadlines. The trade will have a *timer field*, which contains
the deadlines for each event. These deadlines will be visible to the user in the

90

any of the following ways:

- ·Whenever trade details are queried
- Available in any message/pending transactions sent by the TFM processor

Warnings will be flagged against the trade if any of the deadlines are missed for the trade.

Individual deadlines are explained below:

NOE/BON Match

If the trade is input on Trade date, the deadline for the BON/NOE match will be XXX minutes (XXX is a system parameter which is dependent on the type of instrument) from the time of the first transaction input (i.e., NOE or BON). A warning will be sent to both parties of the trade if a match does not take place within XXX minutes before the deadline. This warning will be based on a system parameter as opposed to the profiles of the participants involved. If the trade is input after the trade date, the warning will be sent immediately upon successful validation.

Completion of Allocations

The deadline for completion of allocations will be XXX minutes (where XXX is a system parameter depending on the type of instrument) after the NOE/BON match. A warning will be recorded in the trade for any incomplete or missing allocations not presented by the IM's within the deadline.

Net Proceeds Match

The deadline for Net Proceeds match will be based on the Profile of the GC, the Accounting Agent and the B/D. The deadline for the net proceeds match and the associated alerts should be based on the earlier of the accounting and the settlement deadline as expressed above.

91

The settlement location is based on the following information:

- Settlement Location specified by the B/D in the NOE
- Instrument Code data (country of issue) in the absence of any settlement location information

5
- Settlement Location, if and when specified by the GC

In the absence of deadlines based on the information in the profile of the GC, the Accounting Agent and the B/D, the generic TFM processor deadlines, as given below will be applied.

10   The deadline for Net Proceeds match will be defined as XX hours/minutes prior to the Settlement Date/Deadline Time. The parameters, XX hours/minutes will be based on the deadlines for the settlement location and could be different for different types of instruments. A warning will be sent to both parties of the trade if a match does not take place within XXX

15   minutes before the deadline. This warning will be based on a system parameter as opposed to the profiles of the participants involved.

Submission of Accounting Information

The deadline for the submission of information required for additional accounting purposes will be based on trade date/time or Allocation Date/Time

20   plus an amount of time specified by the Accounting Agent in its profile.

Warnings will be sent "pushed" to the IM and the B/D if the requirements for accounting are not completed by **XX hours/minutes** before the accounting deadline where **XX** is a parameter maintained by the IM in the profile. This explained below:

25
- The IM will receive notifications that allocations relating to a block trade have not been received by the TFM processor. This notification process will be based on a default amount of time, for example at the end of the day, unless a specific parameter is established in the IM's profile.

- The IM will receive a warning if the accounting information is not input

92

XX hours prior to accounting deadline

- Warnings will need to be sent to the Accounting Agent in cases where the accounting information is released prior to the completion of the net proceeds matching process clearly indicating that the reporting is a unconfirmed reporting.

Settlement Channel Match

The deadline for settlement channel match will be based on the profile of the GC and the B/D. The deadline for the settlement channel match and the associated alerts should be based on the settlement date/Deadline time in the relevant settlement location minus the larger of the amount of time specified by the GC and the B/D in their profiles.

The settlement location is based on the following information:

- Settlement Location is specified by the B/D in the NOE
- Instrument Code data (country of issue) in the absence of any settlement location information
- Settlement Location if and when specified by the GC

In the absence of deadlines based on information in the profile of the GC and the B/D, generic TFM processor deadlines, as given below, will be applied.

The deadline for the settlement channel match will be defined as XX hours/minutes prior to the Settlement Date/Deadline Time. The parameter XX hours/minutes will be based on the deadlines for the settlement location and could be different for different types of Instruments. A warning will be sent to both parties of the trade if a match does not take place within XXX minutes before the deadline. This warning will be based on a system parameter as opposed to the profiles of the participants involved.

Setting of Deadlines

All of the above deadlines will be calculated and the earliest of the deadlines will be set. For example, if a trade is input on settlement date (i.e.,

trade date is the same as settlement date) at 13:00 UTC, then the deadline for NOE-BON match is calculated by the TFM processor as 15:00 UTC (+2 hours from trade input). The TFM processor also finds that settlement deadline for the trade is 14:00 UTC. Since the settlement deadline is earlier than the NOE-

5   BON match deadline as calculated by the TFM processor, The TFM processor sets the NOE-BON match deadline as 14:00 UTC.

Master and Reference Data

All generic and specific processes of the TFM processor make use of

10   data in one form or another. The data can be grouped under two broad categories - generic data and process data. Process data is used, manipulated and updated by all or specific processes (e.g., Trade Details, Allocation Details, Settlement Details, etc.) Generic data is used by most of the processes for validation or reference purposes. Generic data in the TFM processor has been

15   further subdivided into MASTER data, PROFILE data and REFERENCE data. Since participants maintain most of the profile data in the TFM processor, it has been separately dealt with under Profile Maintenance. The data classified under Master data and Reference data are explained in this section.

20   ### Master Data

All data that is administered and maintained by the TFM processor for generic processes has been grouped under MASTER data. All processes in the TFM processor use this data to validate the inputs and to decide on the flow of the respective processes. This data is further subdivided according to usage

25   and the level at which it is stored and maintained. The tables under which Master data is stored are given below.

➢ Currency

➢ Country

➢ Primary Numbering Agency Code Identification

30   ➢ Settlement Location

94

➤ Settlement Bridge

The individual tables and their contents are explained below.

Currency

The various currencies used in cross-border trades and related information are
5 maintained by the TFM processor in the Currency Code Table of FIG. 49. All
currency-related details are validated against this data.

Country

Country codes are used to identify the proposed settlement location
except in the case of ICSDs where a BIC is used. The various countries
10 involved in cross border trades and the associated default settlement locations
are maintained by the TFM processor in the Country Code Table of FIG. 50.

The proposed settlement location indicated in the Notice of Execution
by the B/D is the location of their local settlement agent. If such a location is
the country, then the TFM processor Administrator has to determine to
15 maintain for every country the default settlement location (i.e., the default
settlement organisation for the particular Instrument Type) to apply both for the
tolerance for net proceeds and for the related settlement deadlines of the
location.

Tolerances

20 Tolerance for the Net Proceeds matching can be broadly classified as
Participant and Market. Participant maintained tolerances are detailed under
Profiles. Market tolerance for the Net Proceeds match will be maintained in
the TFM processor at the system level by Settlement Location, Settlement
Currency and Instrument type. This field is also included in the Settlement
25 Location table explained below.

Primary Numbering Agency Code

The TFM processor maintains the primary numbering agency codes for

securities by instrument type and country of issue in the Instrument Type Table
of FIG. 51.

Settlement Location

5   The TFM processor maintains the details of all valid settlement
locations in the Settlement Location Table of FIG. 52. Settlement currencies
supported at each settlement location will be referenced to validate the
settlement currency mentioned for the settlement location in the settlement
details. The method of settlement will also be validated by the TFM processor
10   by referencing this table.

Based on the generic deadlines to be followed in the TFM processor for the Net
Proceeds match and the Settlement Details match, warnings will be attached by
the TFM processor to the subsequent notification messages or query replies to
the parties involved.

15   Settlement Bridges

An authority (such as the GSTPA) can approve the settlement bridge
channels that support the DVP. The TFM processor maintains necessary details
of all GSTPA approved settlement Bridges between the ICSDs and between the
ICSDs and the CSDs to facilitate the exchange of relevant information to the
20   local agents for effecting proper settlement. The Settlement Bridge Channels
Table of FIG. 53 details the information the TFM processor will maintain with
respect to settlement bridges. New bridges may be formed from time to time.
The TFM processor Administrator will update the above table with the details
of such new bridges as and when an authority such as GSTPA approves them
25   for support within the TFM processor environment. In addition, the
Participants can maintain in their profiles the settlement bridges they would
like to support as well as the currencies they will support in these bridges.

Reference Data

Data administered and maintained by third-party vendors that the TFM processor will reference for validations has been grouped under REFERENCE

5   data. Such data can be referenced by the TFM processor from the third party database for generic validation or can be referenced from the earlier referenced data held by the TFM processor as Cache in its own database. Data stored in the TFM processor database will be continuously refreshed. The TFM processor validates a financial instrument by accessing a third party vendor

10   database as and when a transaction is reported. To maximise performance on such validations, it reuses the cache data when the same instrument has to be validated again. Similarly, the TFM processor updates the BIC database at frequent intervals depending upon the frequency of updates of the BICs directory by SWIFT. The sets of data that will be referenced by the TFM

15   processor will be BICs and Security Identification related data.

Security Identification

➢ Financial Institution Identification (BIC)

➢ Account Identification is referenced by the participants directly. In the current phase, the TFM processor does not support account identification

20   cross-referencing.

Security Identification

The TFM processor may adopt, for example, ISIN as the preferred securities identification code. The TFM processor will then maintain ISIN numbers for all types of financial instruments as the Primary Identification

25   code. The primary identification code will be identified for the Instrument Type and country of issue. This is to support such cases where an ISIN is not issued (i.e., US dealt MBS, ABS). As it is appropriate to consider the use of other well-accepted identification codes as an alternative when ISIN are not readily available, the following Numbering Agencies codes will be supported.

> SEDOL
> CUSIP
> QUIK.

5

The TFM processor may be configured to support the aforementioned Primary identification codes.

If incoming data contains the identification in the primary numbering agency
10   code as the source of the financial instrument code, the TFM processor will proceed directly with the validation process by obtaining the related information from the third party vendor database and performing the necessary validations.   If the primary numbering agency code is not used, the TFM processor will carry out the following translation process.

15

a.   The Translation process may be performed through the use of a third party providing a cross-reference database for the source and the instrument category. The cross-reference will generate the corresponding Primary identification code or ISIN code whenever possible for use in the
20   validation processes.
b.   Matching/validation will take place based on the primary identification codes provided by the B/D and the IM, if they use the same Numbering Agencies code (i.e., both use ISIN, CUSIP, etc.) For example: If both sides want to match on CUSIP and CUSIP happens to be primary identification
25   code for the instrument type, then the matching will be done on CUSIP. No translation is done in this case.
c.   Matching/validation will take place based on the translated primary identification codes or ISIN codes if both parties used different numbering agency codes.
30   d.   The original numbering agency and identification code will always be

98

provided together with the translated code that resulted in the match.

To avoid the need to access the external database every time for validation and translation, the TFM processor will maintain the most recent version of the

5   ISIN related information in its internal cache. The internal cache will be refreshed every day to ensure that it is current.

An indicative lists of elements to be maintained is given below.

➢ Primary Numbering Agency Code

➢ Identification in Primary Number Agency code

10   ➢ Other Numbering Agency code (repeated for each code for which translation is available)

➢ Identification in the other Numbering Agency Code (repeated for each code for which translation is available)

➢ End/Maturity Date

15   The information relating to end/maturity date is used for validation purposes. The trade date should be earlier than or the same as the end/maturity date.

Financial Institution Identification (BIC)

A unique ISO Bank Identifier Code (BIC) will identify financial

20   Institutions. BICs are an internationally standardised method for identifying financial institutions. The BIC is designed to facilitate automatic processing of telecommunication messages in banking and related financial environments.

A BIC is either a:

➢ SWIFT BIC - a registered BIC of a financial institution connected to

25   SWIFT or

➢ Non-SWIFT BIC - a BIC of a financial institution that is not connected to SWIFT (it is denoted by the digit '1' in the eighth position)

The ISO Bank Identifier Code (BIC) consists of 11 characters, including the following four components explained in the Bank Code Table of FIG. 54. The

first three components; The Bank Code, the Country Code and the Location Code are mandatory components of a BIC.

Parties interacting with the TFM processor will identify themselves with their 8-character or 11-character BIC. The GSTPA recommends use of separate

5   BICs for every role performed by a participating legal entity. The validation of this BIC will be done by the TFM processor by referencing the BIC table maintained by the TFM processor. The TFM processor will make use of only the first 8 characters of the BIC for the purpose of matching the counterpart of the trade.

10

The BIC table of FIG. 54 contains all generic information related to the financial institutions. The TFM processor validates the following input fields with the BIC table and process these detail only if the BIC is found to be valid.

➤ IM

15   ➤ B/D

➤ Settlement Location for ICSDs

➤ GC for the allocation

➤ Broker of Credit

➤ Securities Agent at Location

20   ➤ Cash Agent at Location

➤ Substituting Party

➤ Accounting Agent

➤ Reference Data Provider

➤ Lending Agent

25   ➤ Concentrator participant AM

➤ Domestic/Cross-Border TFM processor.

The account of the participant at the settlement location is not identified by using BICs. SWIFT may assign and administer BICs for all GSTPA Participants. .

Account Identification

The IM provides in the Allocation message the Account number of the client as per its internal records and the GC's client account number. The TFM processor does not perform any cross-referencing of the IM's account number

5   to the B/D's internal account numbers. To enable the B/D to cross-reference between the IM's number and the B/D's internal reference number, the IM will also provide in the Allocation message the Access code relating to the vendor's system where the account number is registered, if it is indeed registered (e.g., in Alert, SID, etc.) The TFM processor will send this information to the B/D as

10   part of the Allocation Notification. The B/D will interface with the vendor system for internal account set-up and cross-referencing purposes. The GC will receive the IM's account number and the GC's account number as provided by the IM on the allocations.

A process can be implemented to create a new, standard numbering

15   scheme to identify accounts/portfolios. This involves the creation of a "Fund Registering Agency" that would allocate unique fund numbers for each account/portfolio that an institutional investor (e.g., a mutual fund, a pension fund) would want to register. This registering agency would collect at that time the minimum amount of information about the account/portfolio that is needed

20   for the IMs, the B/Ds, and the GCs to recognize this entity (e.g., tax domicile). The IM and the GC would use the unique number either directly or by cross-referencing. The association of this unique number with the IM BIC code would uniquely define the account for a B/D. The IM will identify their client account numbers as "Portfolio X," the GC will identify their client account as

25   "Portfolio X" and the B/D will identify their client account as "Portfolio X at IM Y."

The transition from the current situation to this new account numbering would be implemented as follows. In the early phase of the proposed scheme, the IM will submit its Account number, the GC's account number, and the

30   Vendor Access Code and the GSTPA account number, if available. The B/D

101

will receive from the TFM processor, the IM's account number, the Access Code and the GSTPA account number, if provided by the IM. The GC will receive from the TFM processor, the IM's account number, the GC's account number and the GSTPA account number, if provided by the IM.

In the long term, the IM will submit the GSTPA account number only as part of the Allocation message. The B/D and the GC will receive the GSTPA account number from the TFM processor as part of the Allocation Notification and do the cross-referencing internally in their own applications.

Participant Profile Data

The Transaction Flow Manager (TFM processor) maintains a profile for each Participant of the GSTPA. The TFM processor Administrator does the initial set up of the primary details of the participant. Thereafter, the participants, using the profile message, will maintain the profiles. The Participant Profile contains information on the operating preferences of the Participants with respect to the TFM processor based on their internal operating procedures.

A Participant Profile contains the information and the rules relating to the following:

Participant Details

- Participant Roles
- Participant AM Details
- Routing Details
- Message Submission Modes
- Substitution
- Timing Rules
- Matching Tolerance
- Aggregation
- Settlement Release
- Profile for Broker-to-Broker Trades.

102

Profile Details – From the Role Perspective

The Role Profile Table of FIG. 55 summarises the various profile categories applicable for specific roles. The Participant, using the messages defined for profile maintenance, can administer the Profile. The following information in the TFM processor can be maintained by axion4gstp as TFM processor System Administrator:

- Participant Primary details
- Substitution
- A Substituting Party for the specific role that is being substituted will maintain profiles. That is, if a substituting GC is submitting Settlement Details for a non-participating GC, the substituting GC can maintain GC-specific details such as Net proceeds & Settlement match deadlines, supported settlement bridges and so on, that are applicable for the specific role. Before an Accounting Agent starts maintaining its Profiles, TFM processor will validate whether an accounting agent has been appointed by the IM in its profile for the particular account.

Profile Administration

The Profile for a Participant is created when the TFM processor System Administrator defines the Participant in TFM processor. This will consist of certain basic mandatory information such as participant details, roles, and the default PAMs etc. that are required by the Participant to interact with the TFM processor. Any overriding values and operating preferences will need to be subsequently maintained by the Participant.

Participants can maintain the following profile details in the TFM processor:

- Gross amount match tolerance (IM, B/D)
- Net proceeds match tolerance (IM, B/D)
- Match of brokerage commission at block trade level (IM. B/D)

103

- Use of external common reference number match for applying tolerance on match of gross amount (IM, B/D)

- Client Profiles (IM)

- Accounting deadlines (Accounting Agent)

5   - Routing details (IM,B/D, GC, Interested Parties)

- Indicator for supported transaction type (B/D)

- Notice of pending transactions (IM,B/D)

- Settlement deadlines (B/D, GC)

- Supported settlement bridges (B/D, GC)

10

Participants may add/replace/delete individual detail in the Profile using "Maintain Profile" messages. Each add/replace/delete can be done in the Profile specifying the date that the values will become effective. The effective date along with the added/replaced/deleted profile detail can either be an

15 immediate or a "future" date. The future date refers to a future system date except for routing details where the date specified refers to the future trade date. When an update to a Profile is effective immediately, the updated values will apply to all open transactions.

- Any net proceeds that have failed match will be taken up for matching

20   again if a Participant modifies the matching tolerance. However, any matched net proceeds will not be taken up for re-matching based on the new profile value.

- If changes are made to deadline details in the Profile to be effective immediately, the new deadlines will be re-applied to all relevant open

25   transactions, which have pending deadlines against them.

All other profile updates will take effect only for new transactions submitted to the TFM processor. The TFM processor will maintain the log of all profile changes. The Participants can query their Profile details and log of changes.

Participant Details

The basic information pertaining to a Participant in the TFM processor is set forth in the Participant Table of FIG. 56.

5   *Participant Identification:*

A Participant of the GSTPA is identified and represented in the TFM processor in the ISO standard Bank Identifier Code (BIC) format. The BIC is a unique address that, in telecommunication messages, identifies precisely the financial institutions involved in financial transactions. The BICs are administered by

10   S.W.I.F.T and are meant for universal usage and not just on the S.W.I.F.T. network.

15

Participant Address Details

Participants may need to maintain one or more physical addresses with the TFM processor for the purpose of correspondence. A Participant can have one or more addresses representing the financial institution, various

20   departments or transaction types. A particular address of the participant maintained in the TFM processor is stored in the Participant Address Table of FIG. 57.

Participant Roles

25   A Participant can assume one or more roles in its interaction with the TFM processor. One or more of the following roles can be defined for a Participant, as shown in the Participant Roles Table of FIG. 58.

Information based on a Participant-Role relationship consists of the following:

- Status of a Participant for the role.

30   - TFMs and/or Concentrators to which a Participant is connected for a

role if applicable.

- The messages that the Participant is authorised to send when acting in the given role. For example, with a role as GC, a Participant is only authorised to send the Settlement Details.

5

Participant Access Modules (AMs)

Participant Access Modules (Participant AMs) provide a means of access to the TFM processor for Participants. The related information maintained in the TFM processor is stored in the Participant AM Identification

10   Table of FIG. 59.

Relationship between Participants' Roles, BICs, TFM processor, Participant AMs and Concentrators

The information flow diagram of FIG. 60 illustrates the relationship

15   between the Participants, BICs, Participant AMs, the TFM processor and the Access Concentrators. Observe the following points with reference to FIG. 60:

1. A Participant (8-Character BIC) can be associated with one or more roles

2. A Participant can be associated with one or more 11-character BICs.

20   However, the first 8-characters of the BICs will always be the same and correspond to the BIC Identification of the Participant.

3. A Concentrator can be associated with one or more Participants. These Participants can use a Participant AM owned by the Concentrator to access the TFM processor.

25   4. A TFM processor can be associated with one or more Participants and a Participant can be connected to more than one TFM processor.

5. An 8-character BIC of a Participant can be associated with one or more Participant AMs owned by the Participant. Participants can assign optionally one of the Participant AMs to an 11-character BIC. Each 11-

30   character BIC can have a profile of its own, if the participant so desires. For

106

example, the 8-character BIC can have a routing profile that is different
from that of the 11-character BIC.

6. A TFM processor can be associated with none, one, or several
    Concentrators. A Concentrator may be connected to one or more TFMs.

5 7. A TFM processor can be associated with one or more Participant AMs,
       which it uses for its communication with the Participants.

8. A Concentrator can own one or more Participant AMs.

Routing Information

10   Participants maintain routing information in their Profile to specify the
Participant AM(s) at which different messages from the TFM processor will be
received. By default, all messages are routed to the default participant AM
associated with the applicable role of the Participant. The routing information
can be set for the various categories of messages as explained below:

15

Error Messages

        Error messages are sent in the event of edit check failures and match
failures. Error messages are always "pushed" to the Participants. If the
Participant chooses to receive all error messages at a Participant AM that is
20 different from the default Participant AM, this information will be specified in
the Routing Profile. It is also possible to maintain different Participant AM(s)
for error messages received at different stages of a trade. For example, the
NOE acceptance error messages could be routed to a Participant AM that is
different than the Participant AM to which net proceeds match failure messages
25 are routed.

Warning Messages

        Warning messages are sent in the event of non-critical errors during edit
checks and matches. If there are warnings during an edit check or a match
30 process, these will be sent to the Participant. The Routing details for warning

107

messages will specify the Participant AM(s) to which the warning messages are to be routed.

Success Messages

5   Success messages are sent for successful acceptance and matches. A success message will be sent to the Participant only if the Participant opts to receive it. Hence, Participants could opt for success messages for matches alone, but not for acceptanceof messages. The routing information for success messages will specify whether the Participant opts to receive the success
10   messages and the Participant AM(s) to which the messages are to be routed if different than the default Participant AM.

Pending Processing Messages

15   Pending messages are sent when messages are received out of sequence by the TFM processor due to network related problems (e.g., an Allocations message received by the TFM processor before the BON message from the IM). A Pending Processing message will be sent to the Participant only if the Participant opts to receive it. The routing information for the pending
20   processing messages will specify whether the Participant opts to receive the pending processing messages and the Participant AM(s) to which the messages are to be routed if different than the default Participant AM.

Warning for Pending Processing Messages

25   Before discarding the messages received out of sequence by the TFM processor, it will generate a warning to the participant. This message will indicate that the TFM processor is likely to Discard Pending Processing Messages, if the earlier message on which this message is dependent is not received within xx minutes. This is an alert message and is not profile driven.

30

Discard Pending Processing Messages

Messages received out of sequence by the TFM processor due to network related problems (e.g., an Allocations message received by the TFM processor before the BON message from the IM) will be discarded by the TFM

5   processor after a TFM processor defined wait period. The routing information for the discard pending processing messages will specify the Participant AM(s) to which the messages are to be routed if different than the default Participant AM.

10   *Notification Messages*

Notification messages are sent to the Participants to notify them of crucial information such as the Match Reference Number, Match of Net Proceeds, Match of Settlement Details, Allocations to the B/D and GC, Pending Cancellations, and changed deadlines. Notification messages are

15   always "pushed" to the Participants. If the Participant chooses to receive all notification messages at a participant AM other than the default participant AM , this information could be specified in the Routing Profile. It is also possible to maintain different participant AM (s) for notification messages received at different stages of a trade. For example, the Allocation notifications

20   could be routed to a Participant AM other than the one used for all other notifications. The GC will receive Allocation notification messages prior to the matching of the trade, if they have specifically indicated such preference in their profile. In this case a normal Allocation notification message will be sent to the GC once the trade is matched and the Allocations are accepted from the

25   IM. The GC who also acts as an accounting agent will receive separate messages for each of these two functions.

Conversational Messages (Notice of Pending Transaction Messages)

Conversational messages are sent to inform Participants of any Pending

30   NOE, BON or Net Proceeds. The Participant will maintain in the Routing

109

Profile if any or all Conversational messages will need to be routed to a
Participant AM other than the default Participant AM.

Alert Messages (Time Expiry warning messages)

5   The TFM processor will alert participants, if any of their trades or
allocations is in jeopardy of missing a significant event like a settlement
deadline or an accounting deadline. The routing information for alert messages
will specify the Participant AM(s) to which the messages are to be routed if
different than the default Participant AM.

10

Status Change Notification Messages

Status Change Notification Messages are sent to the participant to
indicate significant status changes for the trade. For example, when a block
trade progresses from partially allocated to fully allocated, when all Net
15   Proceeds for a block trade are matched or all settlement details for a block trade
are matched. When a block trade is completed in all respects, a status change
notification message will be sent to the Participant only if the Participant opts
to receive it. The routing information for status change notification messages
will specify whether the Participant opts to receive the status change
20   notification messages and the Participant AM(s) to which the messages are to
be routed if different than the default Participant AM.

Notice of Pending Transactions

A Participant will choose to submit messages to the TFM processor
25   either in independent mode or in conversational mode. In independent
submission mode, Participants submit messages without being prompted by the
TFM processor. In conversational submission mode, the Participant will
respond to notice of pending transactions received from the TFM processor.
However, the participants can submit a message in independent mode even if
30   they have opted for conversational mode of data submission in their profiles. ...

The TFM processor will not validate an incoming message for the data submission mode of the participant.

The TFM processor sends notifications for any of the following transactions pending from a Participant – NOE, BON or Net Proceeds. Each Participant will specify in their Profile whether and when it wants to receive notification of pending transactions. If participants do not specify this information, the notification of alleged trade will be sent to the participants at the system default timing. The details maintained by the participant are summarized in the Transaction Notification Table of FIG. 61.

The timing of the notice of pending transactions will also be based on the deadlines (i.e., end of the day for the market) even if the time specified for such notice has not elapsed. For example, if the participant has specified two hours for reporting the notice of pending NOE, but if the settlement deadline is earlier than this, then the timing of the notice of pending transaction will be at the time the warning for the settlement deadline is expected to be sent.

Substitutions

A Participant may be substituted for in terms of the submission of the Net Proceeds or the Settlement Details. The TFM processor administrator will maintain such substitution relationships in the TFM processor.

Net Proceeds Substitution

A B/D or an IM may outsource the Net Proceeds calculation and submission to a Third Party. The profile of the B/D or the IM will contain details of the Substituting Party who is expected to submit the net proceeds. If substitution is defined for a B/D and the B/D itself submits Net Proceeds instead of the Substituting Party, the message will be rejected by the TFM processor.

The Net proceeds substitution details maintained in the TFM processor consist of the details set forth in the Proceeds Substitution Table of FIG. 62. In

111

addition, IMs and B/Ds will be able to set up substitution for either a specific settlement location or a specific instrument type. For example Participant A can specify for settlement location "Thailand" participant B will provide the net proceeds.

5

Settlement Details Substitution

A non-participating B/D or GC can be substituted by a Participant of the TFM processor to submit the Settlement Details. The Substitution Profile Table of FIG. 63 stores the identification of the substitute who will be submitting the Settlement Details and the message type for which it is being substituted. The concerned B/D or the GC may appoint this substituting party. The IM can also appoint a substitute for non-participating B/Ds and GCs. When the non-participant GC does not appoint a substituting party, multiple parties can substitute. Therefore, the substituting party is identified by the combination of the identification of the IM and the GC. The Substituting Parties can maintain appropriate profiles for non-Participants. For example, if a non-participating GC is being substituted for Settlement Details, then the profile details such as settlement deadlines and so on can be maintained by the Substituting Party on behalf of the non-Participating GC. In addition, even participating GCs and B/Ds can set up substitution for either a specific settlement location or a specific instrument type. For example Participant A can specify for instrument type "Fixed Income" participant B will provide the settlement details.

Client/Portfolio Details

The Investment Manger maintains information regarding client accounts/portfolios in the TFM processor to enable processing based on this information. The following information will be maintained in the Profile of the IM/Accounting Agents for client accounts/portfolios:

- The IM specifies the client accounts/portfolios and other details of the client account/portfolio, such as class or category of the account/portfolio etc.

(e.g., US Insurance fund, UK mutual fund, etc.) The Standards Committee of GSTPA will standardise the class of accounts for use within the TFM processor environment.

- The IM maintains the information about all the Accounting Agents associated with each of the client/portfolios.

- Accounting Agents maintain the information of their Participant AMs for receiving accounting information from the TFM processor. Before an Accounting Agent starts maintaining its Profiles, TFM processor will validate whether an accounting agent has been appointed by the IM in it profile for the particular account.

- The Accounting Agents will also specify the accounting deadlines with respect to the client accounts/portfolios. The Accounting Agent can specify accounting deadlines based on the class of client accounts/portfolios. The deadline is expressed as a time at which the TFM processor will report the accounting information, for all the confirmed and the unconfirmed trades belonging to that particular class of accounts, to the respective accounting agents. The Accounting Agent can also maintain, if required, stricter deadlines at the client account level. If more than one accounting agent is appointed for an account, the stricter of the deadlines among the deadlines of the accounting agents for that particular account will apply.

- For each client account/portfolio, the IM will also specify whether its net amount or the B/D's net amount will be sent to the Accounting Agent, if the net amounts have not matched at the time of reporting.

- In addition, the IM will maintain the time with respect to the deadline at which it and the B/D should receive an alert if the transaction remains unconfirmed.

The accounting information sent by the TFM processor to the Accounting Agents will consist of the accounting data sent by the IM as well as selected trade and settlement details.

The IM Client Profile Table of FIG. 64 illustrates the profiles

maintained by the IM for its Clients.

The Accounting Agent Profile Table of FIG. 65 illustrates the profiles maintained by the Accounting Agent for its Clients.

5   Examples of Deadline Setting for Accounting Agents:

Example 1:

Accounting Agent A for class of accounts "Mutual Funds Registered in Hong Kong" specifies a daily reporting based on the Allocation Time. The deadline is 5:00 PM Hong Kong time and the reporting duration is all the

10 Allocations done from previous day 4:01 PM (-1 Days 4:01 PM) to 4:00 PM on the same day (0 Days 4:00 PM).

A UK IM carries out two Allocations for a Mutual Fund registered in Hong Kong -- one at 7:00 AM GMT and another at 9:00 AM GMT on 12th June 2000 for Clients who are accounted for by Accounting Agent A. The

15 Time Difference between UK and Hong Kong is 8:00 hours. At 9:00 AM GMT and 5:00 PM Hong Kong Time on the 26th June 2000, both the Allocations have not been matched for Net Proceeds. TFM processor only reports the first Allocation as an unconfirmed (soft) accounting report to the Accounting Agent A.

20

Example 2:

Accounting Agent A for class of accounts "Mutual Funds Registered in Hong Kong" specifies a daily reporting based on the Allocation Time. The Accounting Agent indicates that all Allocations should be reported 5 hours

25 from the Allocation Time. In this case all Allocations will be reported 5 hours from the submission time if they remain unconfirmed.

Note: Confirmed reporting is not deadline based. Once the Allocation is matched for Net Proceeds, if there is any reporting requirement for the Client.

30 The TFM processor will automatically carry out the reporting. The MIS will

114

keep track of confirmed reporting with respect to the deadlines established by the Accounting Agent.

Settlement Deadlines

5   Please refer to the Alert and Deadlines processing for the profiles related to settlement deadlines.

Matching Tolerances

The following details on matching tolerance will be specified by a
10   Participant in the Profile:

(a): Matching of Trade Price/Gross Amount

Participants can maintain in their profiles whether they want an exact match on the trade price at the block level or not. If neither party requires an exact match on the average price in the block trade, a unilateral tolerance
15   maintained by the participants at the settlement currency level by instrument type will be applied to the gross amount. The Participants can define the unilateral tolerance amount for each currency by instrument type, which they would like to use for the gross amount match. Participants can define in their profile whether they would like to use an external common reference number
20   match for applying the tolerance for matching of the gross amounts or not.
The Matching Tolerance Table of FIG. 66 explains the matching tolerance at the level of the Block Gross Amount.

(b): Matching of Brokerage Commission

Participants can specify whether they would like to match the brokerage
25   commission at the block trade level exactly or not. If the participant has specified that exact match of commission is required, the trade will not be matched if the commissions do not match. If the Participant has indicated that exact match of commission is not.required, the trade will be matched if the commissions do not match, but a warning will be issued indicating the
30   commissions do not match.

115

Matching of Net proceeds

Participants can specify the following details relating to tolerance values for net proceeds match:

5 • Each Participant will maintain a unilateral preference with respect to prevailing amount if the net proceeds match within participant tolerance. · The possible values for this preference will be:

• "Use my amount," "Use Counterpart's amount" or "Neutral."

• Unilateral Tolerance: The matching tolerance for a Participant will be
10   specified as a % value. This is applicable for all currencies. In addition, the Participant can also specify a limiting amount at each currency level, which is the maximum amount up to which the % tolerance value will apply.

• Bilateral Tolerance: Participants can also maintain different limiting amounts for different counterparts for a specified currency.

15 This tolerance value will be applied if the net proceeds do not match within the market tolerance, which is maintained at the level of settlement location and settlement currency combination.

20 **Supported Transaction Types**

B/Ds can maintain in their profiles any requirements or preferences with respect to different product types. For example, a B/D will indicate in its profile whether Broker-to-Broker trades are to be processed by the TFM processor or not.

25

Supported Settlement Bridges

Participants (B/Ds and GCs) can maintain in their profiles the Settlement Bridge channels, which they would like to make use of through the TFM processor. They can also maintain the details of the currency of settlement and
30 the type of instrument, which they would like to make use in each bridge

116

channel. The TFM processor will make use of this information while performing the match of settlement channel compatibility.

Queries

5   The Transaction Flow Manager (TFM processor) supports several types of queries by the participants. The basic principle of supporting queries is to enable participant's search the data for quick decisions. This enables the participants to achieve higher straight through processing rate in case of errors (data and match). The TFM processor provides unrestricted search/access to

10   query data relating to own trades and profiles. The access to data of the other participants are restricted depending upon the sensitivity of the data. For the sensitivity/secrecy reasons, the data will be classified as Public domain information and Private domain information. While the public domain information can be queried by all participants, the private domain information

15   can not be queried by other participants.

The TFM processor supports various types of queries for different roles of the participants. In addition to supporting queries by the IMs, the B/Ds and the GCs, the TFM processor will also support queries by a Concentrator and the

20   Accounting Agent. Certain category of participants will have the ability to use only certain types of queries. For example: Accounting Agents can query their own profiles only. Concentrator will be able to query only the trades submitted by a participant through them. The TFM processor provides for following types of queries by the participants.

25

➤ Trade Queries
➤ Own Trades
➤ Alleged Trades
➤ Profile Queries
30 ➤ Own Profiles

117

➤ Counterpart profiles

➤ Market Profiles

➤ Reports

➤ Performance Score Card

Trade Queries:

Own Trades

Participants will be able to query the data relating to own trades. Participants will be able to query the data on the block trade level as well as data on the allocation level. The data on block trade level can be queried using the Physical sender, Actual sender and Trade reference number as the key. For querying the data on allocation level, in addition to the Physical sender, Actual sender and Trade reference number, the participants have to use the Allocation sequence number as the key. Alternatively, participants can also use the Match Reference number as the key instead of their trade reference number.

Participants can query both matched and unmatched trade records. Participants will be able to query the status of their trades. For example: Participants will be able to query all the trades, which are not fully allocated. In addition, they can query the status of an allocation.

Participants can also search based on the combination of the following attributes of the trade giving range of values:

➤ Trade reference numbers

➤ Match reference numbers

➤ Block quantity trades

➤ Trade prices

➤ Block gross amounts

➤ Trade dates

118

➢ Settlement dates

➢ Allocation sequence numbers

➢ Allocated quantities

➢ Net Amounts

5

Participants can also query their trades with the following attributes:

➢ Counterpart

➢ Transaction type

➢ Instrument Type

10 ➢ Buy or sell trades

➢ Security Identification number

➢ Trade or Settlement Currency

➢ Settlement location

➢ Client Account number

15 ➢ GC or a Local Agent.

Alleged Trades

Participants can query the trades alleged against them, which are waiting for their response. They can query the unmatched trade data for the trades alleged

20 against them by following attributes:

➢ Counterpart

.➢ Class of financial instruments

➢ Transaction types

➢ Security identification numbers

25 ➢ Settlement locations

➢ Settlement currency

➢ Buy or sell trades

The queries can also have range of values for search criteria like block quantity, block gross amount, trade date and settlement date.

30

Profile Queries

Own Profiles

Participants can query the profile data maintained by them in the TFM

5   processor. Participants can query the various types of profile information like Matching tolerances for gross amount and net amounts (both unilateral and bilateral), class of accounts and related accounting deadlines, routing profiles, aggregation profiles, settlement deadlines etc. Participants will also be able query the log of changes done between a period on their profile information.

10

Counterparty Profiles

Participants can query the data relating to their counterparts. Query of the counterparty profiles will be role dependent. For example: An IM will be able to query the public domain profile of the counterpart B/D. However, an IM will

15   not able to query the profiles of another IM. They will be able to query only the public domain profiles. The decision of whether a profile is public or private will be determined using the TFM processor system parameter for the profile. The GSTPA operations committee may decide which profiles will be public and which ones are private.

20

Market Profiles

. Market Profiles are the information relating to various currencies, settlement locations etc maintained by the TFM processor Administrator for the functioning of the TFM processor. Participants will be able to query the

25   information relating to Market tolerances, Deadlines for settlement locations and other system level parameters.

Performance Queries

The overall performance of the TFM processor and the participants in terms of

30   statistics of its trade/message activities will be reported on a daily basis. The

120

TFM processor will also maintain these statistics at the level of the following time frames:

> Monthly
> Quarterly
5   > Yearly.

Trade Statistics

With reference to the Trade Statistics Table of FIG. 67, Trade statistics provide the following information regarding the submitted trades, successful trades, the cancelled trades by the TFM processor, and the cancelled trades by
10   participants. The percentage is estimated based on its respective numbers corresponding to trades submitted.

These statistics are broken down by:

> Participant
15   > Market (Settlement Location)
> Instrument Type
> Settlement Currency.

Individual participants will be able to query these statistics pertaining to them.

20   **Message Statistics**

Message statistics provide the counts of the messages with respect to its functionality. Refer to the Message Statistics Table of FIG. 68 for further details.

These statistics are broken down by:

25

> Participant
> Market (Settlement Location)
> Instrument Type
> Settlement Currency.

Individual participants will be able to query these statistics pertaining to them.

Matching Efficiency

Match statistics provides the counts of matched events (trade match,
5   allocation completion, NP Match, and SD Match), missed deadlines, and
matching efficiency. With reference to the Matching Efficiency Table of FIG.
69, matching efficiency is shown as the number and percentage of events
completed in different time intervals. The percentage is estimated based on the
corresponding number for trades and allocations submitted. For the purposes of
10   benchmarking the value of block trades reported in different currencies, the
TFM processor will use a base currency and an exchange rate between the base
currency and the trade currency.

These statistics are broken down by:

> Participant

15 > Counter Participant

> Market (Settlement Location)

> Instrument Type

> Settlement currency.

20 Individual participants will be able to query these statistics pertaining to it and
its counter participants.

Geographical characteristics of Usage

Statistics on completed trades with respect to geographical usage are
provided in the Geography Table of FIG. 70.

25 **Instrument Types of Usage**

Statistics on completed trades with respect to the instrument types are
stored in the Instrument Type Table of FIG. 71.

Domestic or Cross-border Usage of Services

Statistics on completed trades with respect to the type of service are provided in the Type of Service Table of FIG. 72.

- A domestic trade is the one where all the participants to the trade are from
5   the same country where the security is issued.

Standards Compliance

Statistics on completed trades with respect to securities identification code usage are provided in the Standards Compliance Table of FIG. 73. These statistics are broken down by:

10   ➢ Participant

➢ Market (Settlement Location)

➢ Instrument Type.

Individual participants will be able to query these statistics pertaining to them.

15   **Mssage Handling and Trade Referencing**

Reference Numbers

A trade is uniquely identified within the TFM processor as a combination of the following:

20   • **Actual Sender Identification:** This is represented by the BIC of the actual sender.

• **Physical Sender Identification:** Participants can identify their trades submitted through concentrators by using the physical sender identification of the concentrator as part of the trade identification. This is represented by

25   the BIC of the physical sender.

• **Participant's Trade Reference number:** This is a unique block trade reference number created by the participant for submission of trade details into the TFM processor.

Each participant (IM or B/D) will use their own trade identification number to

submit messages relating to a given trade into the TFM processor. An allocation is uniquely identified within a trade using an Allocation Sequence number as supplied by the allocating party. The GC will use the IM's Trade and Allocation identification to submit the settlement details.

5   The **TFM processor Match Reference Number** is a unique trade reference number generated by the TFM processor for every block trade match. This number will be sent to both the IM and the B/D after the BON/NOE match takes place.

In addition to these reference numbers, the TFM processor and the Participant

10   AM will also issue a unique reference # to acknowledge every message received by the TFM processor and the Participant AM called, the **Receipt Reference #.**

Message Versions

15   Every input message relating to a trade will be assigned a version number by the participant. The objective of the message versioning is to check if the participant is intending to use the version of currently stored details within the TFM processor. The other objective of the message version is to ensure that the right sequence of cancel/replace/delete messages is applied.

20   The Message structure will accommodate a version number on the trade level messages and separate versions for individual allocations within the same message.

Allocation level messages will use the trade reference number and message version number of the BON/NOE to identify the trade. Allocation

25   sequence numbers and their message version numbers will be used to identify allocations.

Each Net Proceeds and Settlement Details message will have its own version numbers for individual allocations, besides explicitly stating the trade version numbers and allocation version numbers.

30   The Reference Numbers Table of FIG. 74 illustrates the reference

124

numbers used during the trade life cycle by each participant to the trade.

All cancellations and replacements will require a new version number higher than that of the version currently stored in the TFM processor. If the TFM processor receives a replace and the corresponding new message with version 1

5   has not arrived, then the TFM processor will process it as a new message. If the TFM processor receives a cancellation or a deletion message and the corresponding new message with version 1 has not arrived, then TFM processor will validate the cancellation or deletion message and create a transaction in "Cancelled" or "Deleted" status. The TFM processor will

10   validate the current version number stored with the version number indicated in the incoming messages. If the message fails the version number validation (i.e., the message version is not higher than the current version), it will be rejected.

Example 1:

Participant A sends a new block trade with trade reference # A1234 and

15   version 1. Participant A also immediately sends a replace message to the trade with reference # A1234 with version 2. Due to network delays, the replace message arrives before the new message to the TFM processor. The TFM processor processes the replace message as though it is a new message. When # A1234 version 1 arrives, the TFM processor ignores it as the TFM processor

20   has already processed version 2 of the trade.

Example 2:

Participant A sends a new block trade with trade reference # A1234 and version 1. Participant A also immediately sends a cancel message to the trade with reference # A1234 with version 2. Due to network delays, the cancel

25   message arrives before the new message to the TFM processor. The TFM processor processes the cancel message. If all the validations for the cancel message are successful, then the TFM processor creates a trade in cancelled state. Once the new trade arrives, TFM processor ignores the new block trade message as it has already processed version 2 of the trade.

30   The following are the sequence of messages expected from the IM:

125

1. Block Trade Details (Block Order Notification)

2. Allocations

3. Net Proceeds and

5 4. Settlement Details.

The following are the sequence of messages expected from the B/D:

1. Block Trade Details (Notice of Execution)

2. Allocations (for pre-allocated trades)

3. Net Proceeds and

10 4. Settlement Details.

The following are the sequence of messages expected from the GC:

1. Settlement Details.

If the sequence of the arrival of the messages for a particular trade reference #

15 and version # is not maintained by the network, then the TFM processor will
keep the out-of-sequence message in pending processing state until the higher
level messages arrive and is accepted by the TFM processor (Examples 1 and 2
below).

Example 1:

20 Participant A sends a new block trade message with reference # A 1234 and
Version 1. Participant A also sends immediately an Allocation Message with
Allocation Sequence # 1 and version 1. The Allocation message arrives before
the block trade messages. The TFM processor keeps the Allocation Message
pending for acceptance until the new block trade message is accepted by the

25 TFM processor. Once the new Block Trade is accepted by the TFM processor,
the TFM processor processes the pending Allocation Message.

Example 2:

In the TFM processor, there is already a trade with reference # A1234 and
version 1 and Allocation with sequence # 1 and version 1. Participant A sends a

30 replace to the block trade with version 2 and increases the block quantity.

126

Participant A also sends a replace message to the Allocation with version 2 and increases the Allocated quantity. The Allocation Message arrives before the Block Trade replace message. In this case, the processing in the TFM processor is exactly similar to the one mentioned in Example 3.

5   The TFM processor will time-out and discard pending processing messages after a system-specified duration. TFM processor will also issue a · warning message to the participant about the discard of pending processing messages. For example, if the Allocations message arrives prior to the Block Trade message from an IM, then the TFM processor will issue a warning to the

10   participant after a system parameter (e.g., 2 minutes) of the arrival that it is still awaiting the Block Trade message. The TFM processor will issue a discard notification and discard the Allocations message, if after a system parameter (e.g., 5 minutes) from the arrival of the Allocations, the Block Trade message does not arrive.

15

New Message Acceptance Process

- **Format Validation**

    - All messages are checked for adherence to a protocol as, for example, for XML compliance, DTD validity and format (datatype)
20   and constraints (conditions). If the format validation fails, error messages are generated and sent to the sender of the message.

- **Sequence Checks**

    - Participants may send their messages to the TFM processor in any
25   sequence. The TFM processor will process the incoming messages in the required sequence.

    - The Sequence check is performed on all input messages except NOE and BON. Sequence checks will check the existence of a trade and allocations as well as their versions and status. If the trade or
30   allocation does not exist, messages are put in "Pending Processing"

127

status.

- All messages in "Pending Processing" status will be processed after the corresponding trade or allocation details are subsequently processed by the TFM processor. If the corresponding trade or allocation details do not arrive within a specified time, the TFM processor will send an alert to the participant.

- If the corresponding trade or allocation details do not get accepted within a specified escalation time after alerts, this "Pending Processing" messages would be "Rejected," as part of the TFM processor housekeeping procedure.

- If the sequence context check fails for status (e.g., new allocations for a fully allocated trade with an existing allocation sequence and version), then messages are "Rejected."

- **Content Validation**

    Content validation is performed on all input messages by the TFM processor against the reference data and existing details. It will generate error and warning codes as applicable. If the validation has only warnings and no errors, acceptance messages are generated based on profile settings. If validation has failed with errors, error messages are sent to the sender.

    If a participant operates in conversational mode and chooses to receive the notice of pending transaction immediately, the TFM processor will generate and send a notice of pending transaction. If the counterpart operates in independent submission mode and chooses to receive the notice of pending transaction after either a profile- based duration or a system-specified duration, the TFM processor will generate and send the notice of pending transaction after the lapse of the duration. The system-defined duration of time between the time that a trade is alleged and the time that the counterpart receives the notice of pending transaction will account for relevant deadlines.

128

Some message acceptances will also generate notification messages (e.g., allocations acceptance will send allocation details to the B/D and the GC). Refer to the Message Status Table of FIG. 75 for further details.

5   **Input Messages**

Input Messages to the TFM processor include any of the following:

> Notice Of Execution

> Block Order Notification

> Allocations

10   > Net Proceeds

> Settlement Details

> Accounting Information

> Participant Profile.

Input messages specify the function of the message, as shown in the Message

15   Function Table of FIG. 76. Input messages include the senders' details, trade identification, allocation identification and version number details.

Multi-part Messages

Related messages to a trade from a participant can be submitted as a

20   multi-part message. The message acceptance process of the TFM processor will split the multi-part message into single pieces and accept them individually.

Output Messages from the TFM processor

25   Output messages generated from the TFM processor will fall into the following broad categories, with reference to the Message Types Table of FIG. 77.

30   **Error and warning Message**

All error and warning messages will have trade identification, trade version numbers, allocation identification, allocation version numbers, and individual message versions. All error messages will have error codes and error field tags. Match error and warning messages will also have the party's value

5   and counterpart's value. Warnings will be sent along with errors or acceptance messages.

Acceptance Message

The TFM processor generates acceptance messages for successful

10   validations. This can be profile driven. The acceptance messages will also contain the status, the trade details and the allocation identification details.

Pending Processing Message

The TFM processor will generate a pending processing message for messages

15   arriving out of sequence. This can be profile driven.

Discard Pending Processing Message

The TFM processor will generate a discard message for any pending processing message that has timed out. This can be profile driven.

20

Notice of Pending Transaction Message

In their profiles, participants will specify whether they will operate in conversational or independent submission mode with respect to alleged trades. Participants that operate in conversational mode will receive notification of

25   pending transactions immediately after the trade has been alleged against them. Participants that operate in independent submission mode will receive notification of pending transactions either after a profile-based duration or a system -defined duration in the absence of any profile. The system-defined duration of time will need to account for relevant deadlines.

30   Block Trade and Net Proceeds are the events for which the TFM

130

processor will generate notice of pending transaction against the counterpart.

Match Notification Message

Match Notification Messages for all matches are pushed by the TFM processor

5   as part of the basic functionality and are not profile driven.

Notification Message

Allocation details and accounting information are notification messages that

are pushed by the TFM processor as part of the basic functionality. Settlement

10   Release can be profile driven.

Status Change Notification Message

Status changes of a trade or trade allocations can be sent to the participant by

trade identification, allocation identification and status of trade and allocation.

15

Alert Message

Alert messages are sent by the TFM processor to participants to warn them

early about deadlines that are about to expire. For example, the TFM processor

will send an Alert message to the B/D and GC one-hour (a system parameter)

20   before the settlement deadlines if either party has failed to input the settlement

details.

With reference to the Block Trade States Table of FIGS. 78,

78A and 78B the composite Block Trade State is a combination

25   of the Block Trade State and Block Trade Allocation Sub-State.

The composite Allocation State is a combination of the

Allocation State and NP state and SD state.

30

131

Input and Output fields

FIG. 79 describes the field elements defined for the TFM processor, along with the associated edit checks for the fields. This Appendix also contains the list of input and output messages and the mandatory, optionality, and conditionality of

5   the field elements in the physical messages. A cross-reference to physical and logical messages has also been provided.

Input Messages

FIG. 80 describes input message field elements and describes which fields are

10 needed in which messages, the mandatory or optionality of the fields in the message, whether the field is matched or not.

Output Messages

In the TFM processor, there are two types of output messages: (a) one to notify

15 the participant about the details of the trade or allocations and the outcome of the matches like Block Trade match notification, Allocation Notification to the GC, Allocation Notification to the B/D, Net Proceeds Match Notification, Settlement Details match notification, Settlement Release Notifications, and (b) another to notify about an acceptance errors, status changes.

20

Messages sent with Trade and Allocation details

The data structure diagram of FIG. 81 groups field elements by input messages and describes which fields are needed in which messages, the mandatory or optionality of the fields in the message, and whether or not the field is matched.

25 Legend for Reading FIG. 81 (as well as other data structure diagrams presented herein):

M – Mandatory Field

O – Optional Field

C – Conditional Field. The presence of the field is dependent on the values

30 specified in other fields. Please refer to Section 1.1 Field Elements for details

of the conditional rules.

TFM processor – The sender identification of the TFM processor.

BM, BO, BC – "B" indicates both sides values for settlement details. "M", "O", "C" Indicates mandatory, optionality and conditionality of the fields.

5   G – Fields generated by the TFM processor

CM – Fields sent only if the trade is matched

PM, PO, PC – "P" indicates either the prevailing side's net amount in case of Net Proceeds Match or the both sides net amounts in case of Net Proceeds match failure. "M", "O", "C" Indicates mandatory, optionality and

10   conditionality of the fields. Global Custodian will only get the prevailing sides Net Proceeds details. Accounting Agents will be reported based on the profile (either Investment Manager's values or Broker/Dealers values)

CK – Fields only used to carry out control checks against the referenced Block Trade or Allocations.

15

The following are the list of output messages with trade details that are sent by the TFM processor:

➤   Alleged NOE and BON to indicate to the counter party about the alleged trades

20   ➤   Trade Match and Trade Pair notification (Trade Match + Pair) to indicate the matching of the trade or the pairing of the trade due to replace of trade details by one of the parties. The details will be similar to the NOE or BON and will contain the counter party's trade details.

➤   Allocation notifications to the Global Custodian (certain fields like

25   settlement location etc., will be sent only if the trade has matched with the NOE)

➤   Pending Net Proceeds (NP Pend) in case the participant is operating in a conversational mode

➤   Net Proceeds match and match failure notification (NP Match) indicating

30   the prevailing amount or the counterparts amount respectively

133

> Settlement Details match and match failure notification (SD Match)

> Settlement Release details (SD Release)

> Accounting Details (Acct)

5 **Messages sent with only reference and status details**

These messages are used to send out successful acceptance of messages or a rejection of the messages due to validation failures. These messages are also used to send any alert notifications to participants to inform them about any deadlines that are going to expire and status changes to trades. Pending

10 processing, alert for pending processing and discard message will be sent as an Alert message with appropriate status in Status of the message field. Deadline change notification will be sent as success messages with the revised deadlines.

The data structure diagram of FIG. 82 groups the field elements by input messages and describes which fields are needed in which messages, the

15 mandatory or optionality of the fields in the message, whether the field is matched or not etc.,. In addition to these fields, there will also control check fields to ensure that participants refer to the right details of the trade and Allocations. These control check fields are not added in the table.

20 **Mapping of Logical Messages to Physical Messages**

Block Trade Details are shown in the data structure diagram of FIG. 83 (for Input Messages) and the data structure diagram of FIG. 84 (for Output Messages). FIG. 85 is a data structure diagram showing input messages for allocations, and FIG. 86 is a data structure diagram showing output messages

25 for the above-described allocations process. FIG. 87 is a data structure diagram showing input messages for the above-described Net Proceeds process, and FIG. 88 is a data structure diagram showing output messages for the Net Proceeds process.

FIG. 89 is a data structure diagram showing output messages related to

30 Accounting Details, FIG. 90 is a data structure diagram showing input

134

messages involving Settlement Details, and FIG. 91 is a data structure diagram showing output messages involving Settlement Details.

Process Variations

5

Broker-to-Broker Trade

B/Ds can report and match their broker to broker trades using the TFM processor. The decision to route broker-to-broker trades to the TFM processor will decided by the participant based on the underlying market infrastructures
10 that already provide such matching facilities for broker-to-broker trades.

B/Ds can indicate in their profiles, whether they would be using the TFM processor for matching broker-to-broker trades. If the one of the B/D in the broker-to-broker trades indicate that they do not want to use the TFM processor for Broker-to-Broker trades, TFM processor will not process the
15 broker-to-broker trade.   In this type of trade, one of the B/D (called as the executing broker) will provide the NOE and the counter party broker will specify the BON. The executing broker will provide all the details which in the normal institutional trade, a B/D will provide. This includes the proposed settlement location. The processing type will be set as "Broker-To-Broker
20 trade" by both sides. On acceptance of the NOE and BON for a Broker to Broker trade, TFM processor will verify the profile of the parties to the trade to find whether they would support the Broker to Broker trade within the TFM processor. If both the parties to the trade have indicated in their profile to support the Broker to Broker trade, TFM processor will further process the
25 trade. Otherwise, the trade will be rejected and an error message will be sent to the Broker submitting the NOE/BON. There will not be any other processing variations in the Block trade processing for the Broker to Broker trades.

Broker to Broker trades will not have any allocation process, as these trades are not for identified underlying funds/portfolios. TFM processor will
30 not have allocation process for Broker to Broker trades.

135

Participants can submit all other details i.e. Net Proceeds and Settlement Details for a Broker-To-Broker trade using a multi-part message along with trade details. Alternatively, participants can also provide Net Proceeds and Settlement details message separately. TFM processor will carry out the net

5   proceeds match and the settlement channel compatibility matches for the Broker-To-Broker Trades.

The TFM processor will match Net Proceeds provided by both the B/Ds after successful match of the trade. The proposed settlement location provided by the executing Broker will be used for the determination of applicable market

10   tolerance. This process is same as the normal institutional trade. The TFM processor will also match Settlement Details provided by both the parties to the trade. In case of a normal institutional trade the GC of the underlying client provides the IM's side of the Settlement Details. But, in case of Broker to Broker trades, both the parties to the trade provide the settlement details. There

15   is no processing variation for the matching of settlement details of Broker to Broker trade within the TFM processor.

It is expected that Broker to Broker trades will not be reported to the TFM processor, if the counterpart is not a TFM processor participant.

20   **Fund to Fund Trade**

Fund to Fund trades can be submitted by either the same IM to handle internal crossings between two funds or by two IMs if they have traded using electronic networks like Instinet or E-crossnet. Funds to Fund trades are treated as a separate processing type within the TFM processor. The parties to the trade

25   while reporting the trades will identify the trade as "Fund to Fund trade" as the processing type.

Fund to Fund trades will have two legs of trade. Both the legs of the trade are treated as normal institutional trades within the TFM processor. The Investment Manager(s) will be able to link these two institutional trades by

using a Fund-to-Fund link reference number. The virtual broker will act as a common broker for both legs of the trade and will provide the Fund-to Fund link reference number while submitting the NOE for both legs of the trade. A virtual broker is either a clearing account in case of internal crossings or an

5   institution providing the fund to fund crossing services (like E-crossnet). The other side of the trade will submit a BON. The information flow diagram of · FIG. 92 explains the handling of a Fund-to-Fund trade.

The common virtual broker submitting an NOE for a Fund to Fund trade could have a role of an IM or a B/D. There are no other process variations

10   within the TFM processor for handling of block trade processing of Fund to Fund trade.

The TFM processor will receive the Allocations from the IM and process the Allocation like any other institutional trade. No process change is envisaged for Allocation processing for fund to fund trades. This process enables

15   Allocations on the buy side of the fund to fund trade and Allocations on the sell side of the fund to fund trade, to flow the information to the GCs of the underlying Funds.

Refer to the information flow diagram of FIG. 93 wherein the IM can submit all Net Proceeds Details for a Fund to Fund trade using a multi-part message

20   along with allocation details. Alternatively, IM can also provide Net Proceeds · and Allocation details message separately. The common virtual broker can submit the Net Proceeds and Settlement details in a multi-part message or in a separate message. TFM processor will carry out the net proceeds match and the settlement channel compatibility matches for the Fund to Fund Trades.

25   The TFM processor will match Net Proceeds provided by both the participants after successful match of the trade. The proposed settlement location provided by the common virtual Broker will be used for the determination of applicable market tolerance for the trade. This process is same as the normal institutional trade.

30   The clearing agent of the common B/D will act as a link for settlement of

137

these trades. The settlement is done between the custodians of the underlying

funds and the settlement agent of the counterpart. Two legs of these trades are

settled via the intermediate counterpart. No process change is envisaged for

settlement details processing.

5

Basket/Program/Portfolio Trading

Participants report and match separately the trades as individual

institutional trades for each underlying security of the basket/program/portfolio

10   trade. The trade transaction type will be reported as "Basket/Program/Portfolio

trade". Participants specify a common Basket reference number for the

underlying institutional trades of a basket. The Trade details relating to every

Security comprised in the basket will be linked with this Basket Reference

number given by the B/D. TFM processor will support queries to participants

15   based on the basket/program/portfolio trade reference number. A typical

basket/program/portfolio trade will be a pre-allocated trade where the B/D will

specify the allocations for the underlying institutional trades. The IM or the

B/D providing the Allocations will provide allocation quantities on an absolute

basis for each Security comprised in the basket for each allocated client. TFM

20   processor will not support the percentage allocations. The percentage

allocations will have to be internalized by the participants in their applications.

Separate allocation message will be sent for various securities comprised in the

basket.

No   Process   change   is   envisaged   in   the   processing   of   a

25   Basket/Program/Portfolio trades.

It will be readily seen by one of ordinary skill in the art that the present

invention fulfills all of the objects set forth above. After reading the foregoing

specification, one of ordinary skill will be able to effect various changes,

substitutions of equivalents and various other aspects of the invention as

30   broadly disclosed herein. It is therefore intended that the protection granted

hereon be limited only by the definition contained in the appended claims and equivalents thereof.

We Claim:

1. A system for matching post-trade, pre-settlement information for a securities transaction, the system comprising:

(a) a communications mechanism adapted to transmit and receive transaction parameter messages setting forth one or more parameter values

5   related to a securities transaction;

(b) a processing mechanism, coupled to the communications mechanism, and adapted to determine matches between one or more parameter values of any two or more transaction parameter messages;

wherein the processing mechanism is further adapted to transmit an

10   indication message over the communications mechanism, the indication message specifying at least one of: (i) the existence of matches between one or more parameter values of any two or more transaction parameter messages; and (ii) the non-existence of matches between one or more parameter values of any two or more transaction parameter messages.

2. The system of claim 1 wherein one or more respective parameter values are associated with corresponding tolerances setting forth a maximum acceptable deviation for the respective parameter value, and the processing mechanism is further adapted to identify matches between parameter values

5   within the maximum acceptable deviation.

3. The system of claim 1 wherein the communications mechanism is

further adapted to accept incoming transaction parameter messages related to a

first securities transaction and incoming transaction parameter messages related

to a second securities transaction; and

5   wherein the processing mechanism includes a discrimination mechanism

adapted to distinguish incoming transaction parameter messages related to the

first securities transaction from incoming transaction parameter messages

related to the second securities transaction; the processing mechanism adapted

to determine matching within a predetermined tolerance and/or compatibility

10   between two or more incoming transaction parameter messages related to the

first securities transaction, and the processing mechanism also adapted to

determine matching within a predetermined tolerance and/or compatibility

between two or more incoming transaction parameter messages related to the

second securities transaction.

4. The system of claim 1 wherein the incoming transaction parameter

messages include parameter values specifying at least one of: (a) block trade

details, (b) allocation details, (c) net proceeds details, and (d) settlement details

for the securities transaction.

5. The system of claim 1 wherein the incoming transaction parameter

messages include parameter values specifying at least one of:

(a) a first set of one or more block trade details, (b) a first set of one or

more allocation details, (c) a first set of one or more net proceeds details, and

5   (d) a first set of one or more settlement details;

and parameter values specifying at least one of:

(e) a second set of one or more block trade details, (f) a second set of
one or more allocation details, (g) a second set of one or more net proceeds
details, and (h) a second set of one or more settlement details;

10   wherein the processing mechanism determines compatibility by
identifying any matches between (a) and (e), (b) and (f), (c) and (g), and/or (d)
and (h).

6. . A system for matching post-trade, pre-settlement information for a
cross-border securities transaction between a first party and a second party, the
first party being a seller or a seller's representative and the second party being a
buyer or a buyer's representative, the transaction being defined by a plurality of

5   parameters, the system comprising:

an input mechanism adapted for receiving a message from the seller or
the seller's representative and a message from the buyer or the buyer's
representative, said messages each setting forth at least one value for at least
one parameter relating to the transaction;

10   a processing mechanism comprising a data storage for parameter values
and a processor for comparing parameter values for each of a plurality of
parameters to identify at least one of compatible and incompatible parameter
values; and

a communications mechanism coupled to the processing system for

15   providing an output message indicative of at least one of: (i) identification of
compatible parameter values; and (ii) identification of incompatible parameter
values.

7.   The system of claim 6, wherein a parameter comprises a value

and a tolerance for the value.

8.   The system of claim 7, wherein the processing mechanism
determines whether a parameter received from the first party is within the
tolerance for the value received from the second party.

9.   The system of claim 6, wherein a parameter has a default value.

10.   The system of claim 6, wherein a parameter has a default
tolerance.

11.   The system of claim 6, wherein a parameter identifies the seller
or the seller's representative and the buyer or the buyer's representative.

12.   The system of claim 6, wherein the processing mechanism
assigns a unique identifier to a particular transaction.

13.   The system of claim 6, wherein a parameter identifies a custodian
for the seller's transaction.

14.   The system of claim 13, wherein a parameter further identifies a custodian for the buyer's transaction.

15.   The system of claim 13, wherein the processing mechanism notifies at least one custodian of a consummated transaction.

16.   A system for matching post-trade, pre-settlement information for a cross-border securities transaction between a seller's representative and a buyer's representative, the transaction being defined by a plurality of parameters, the security being held by a custodian, the system comprising:

5   a communications mechanism for receiving messages from the seller's representative and the buyer's representative, said messages comprising values for the parameters relating to the transaction;

a processing system comprising data storage for parameter values and notifying the seller's representative and the buyer's representative of the

10   parameters for a securities transaction; and

an indication mechanism for providing an indication to the

communications mechanism which is indicative of one or more parameters for

the securities transaction.

17.   A method of matching post-trade, pre-settlement information for a

cross-border securities transaction, the method including the steps of:

(a) receiving transaction parameter messages setting forth one or more

5   parameter values related to a securities transaction;

(b) storing transaction parameter messages;

(c) determining matches between one or more parameter values of any

two or more transaction parameter messages related to the securities

transaction;

10   (d) transmitting an indication message specifying at least one of: (i) the

existence of matches between one or more parameter values of the any two or

more transaction parameter messages; and (ii) the non-existence of matches

between one or more parameter values of any two or more transaction

parameter messages.

18.   The method of claim 17 further including the steps of:

(a) accepting transaction parameter messages related to a first securities

transaction and transaction parameter messages related to a second securities

transaction;

5   (b) distinguishing incoming transaction parameter messages related to

the first securities transaction from incoming transaction parameter messages

related to the second securities transaction; and

(c) determining compatibility between two or more incoming transaction

parameter messages related to the first securities transaction.

19.   The method of claim 18 further including the step of determining

compatibility between two or more incoming transaction parameter messages

related to the second securities transaction.

20. The method of claim 17 further including the steps of:

accepting incoming transaction parameter messages related to a first

securities transaction and specifying at least one of: (a) a first set of one or

more block trade details, (b) a first set of one or more allocation details, (c) a

5   first set of one or more net proceeds details, and (d) a first set of one or more

settlement details;

and accepting incoming transaction parameter messages specifying at least one

of:

(e) a second set of one or more block trade details, (f) a second set of

10   one or more allocation details, (g) a second set of one or more net proceeds

details, and (h) a second set of one or more settlement details; and

determining compatibility by identifying any matches between (a) and

(e), (b) and (f), (c) and (g), and/or (d) and (h).

21. A post-trade, pre-settlement system for facilitating a securities

transaction and comprising:

a. a computer processing mechanism;

b. an interfacing mechanism adapted for interfacing the computer

5   processing mechanism with at least two of the following entities: a seller of a

securities instrument, a buyer of the securities instrument, and a holder of the

securities instrument;

146

wherein, in response to the issuance of a notification of execution

(NOE) message from the interfacing mechanism, the computer provides

10   multilateral data communications between the at least two entities.

22. The post-trade, pre-settlement system of claim 21 wherein the

multilateral data communications includes data specifying at least one of a

settlement location or venue; a source allocation for the securities transaction;

and an amount of net proceeds for the securities transaction.

23. The post-trade, pre-settlement system of claim 21 wherein, for a

first securities transaction, data specifying at least one of:

        (a) a first proposed settlement location,

        (b) a first proposed source allocation, and

5   (c) a first proposed amount of net proceeds,

are entered into the interfacing mechanism, and, for the first securities

transaction, data specifying at least one of:

        (d) a second proposed settlement location,

        (e) a second proposed source allocation, and

10   (f) a second proposed amount of net proceeds,

are entered into the interfacing mechanism;

147

the computer processing mechanism further including a matching

mechanism for identifying any matches between the first and second proposed

settlement locations, the first and second proposed source allocations, and the

15   first and second proposed amounts of net proceeds.

24. The post-trade, pre-settlement system of claim 21 wherein the

computer further includes a confirmation mechanism for sending a

confirmation message to the interfacing mechanism, the confirmation message

identifying matches, if any, between the first and second proposed settlement

5   ˙ locations, the first and second proposed source allocations, and the first and

second proposed amounts of net proceeds.

25. The post-trade, pre-settlement system of claim 24 wherein the

interfacing mechanism includes at least a first interface situated within a first

region defined with reference to geographic, economic, and/or political

boundaries, and a second interface not situated within the first region, so as to

5   facilitate a cross-border securities transaction.

26. The post-trade, pre-settlement system of claim 24 wherein, for a

first securities transaction, a first data set specifying at least one of:

(a) a first proposed settlement location,

(b) a first proposed source allocation, and

5   (c) a first proposed amount of net proceeds,

are entered into the interfacing mechanism, and, for the first securities

transaction, a second data set specifying at least one of:

(d) a second proposed settlement location,

(e) a second proposed source allocation, and

10   (f) a second proposed amount of net proceeds,

are entered into the interfacing mechanism; and

for a second securities transaction, a third data set specifying at least one

of:

(a) a first proposed settlement location,

15   (b) a first proposed source allocation, and

(c) a first proposed amount of net proceeds,

are entered into the interfacing mechanism; and

for the second securities transaction, a fourth data set specifying at least

one of:

20   (d) a second proposed settlement location,

(e) a second proposed source allocation, and

(f) a second proposed amount of net proceeds,

are entered into the interfacing mechanism;

149

the computer processing mechanism further including a matching

25   mechanism for matching the first data set to the second data set, for matching

the third data set to the fourth data set, and for identifying any matches, as

between the first and second data sets, for the first and second proposed

settlement locations, the first and second proposed source allocations, and the

first and second proposed amounts of net proceeds.

27. A method for facilitating settlement of a securities transaction

including the steps of:

(a) receiving transaction parameter messages setting forth one or more

parameter values related to a securities transaction;

5   (b) a determining matches between one or more parameter values of any

two or more transaction parameter messages; and

(c) transmitting an indication message specifying at least one of: (i) the

existence of matches between one or more parameter values of any two or

more transaction parameter messages; and (ii) the non-existence of matches

10   between one or more parameter values of any two or more transaction

parameter messages.

28. The method of claim 27 wherein one or more respective parameter values

are associated with corresponding tolerances setting forth a maximum

acceptable deviation for the respective parameter value,

and wherein the method further includes the step of identifying matches

5   between parameter values within the maximum acceptable deviation.

29. The method of claim 27 further including the steps of:

(a) accepting incoming transaction parameter messages related to a first

securities transaction and incoming transaction parameter messages related to a

second securities transaction;

5   (b) distinguishing incoming transaction parameter messages related to

the first securities transaction from incoming transaction parameter messages

related to the second securities transaction;

(c) determining compatibility between two or more incoming transaction

parameter messages related to the first securities transaction; and

10   (d) determining compatibility between two or more incoming

transaction parameter messages related to the second securities transaction.

30. The method of claim 27 wherein the transaction parameter

messages include parameter values specifying at least one of a settlement

location or venue; a source allocation for the securities transaction; and an

amount of net proceeds for the securities transaction.

31. The method of claim 27 wherein the incoming transaction

parameter messages include parameter values specifying at least one of:

(a) a first proposed settlement location,

(b) a first proposed source allocation, and

5   (c) a first proposed amount of net proceeds,

and parameter values specifying at least one of:

(d) a second proposed settlement location,

(e) a second proposed source allocation, and

(f) a second proposed amount of net proceeds,

10   the method further including the step of:

determining transaction parameter message compatibility by identifying any

matches between the first and second proposed settlement locations, the first

and second proposed source allocations, and the first and second proposed

amounts of net proceeds.

15

32. A method for facilitating settlement of a cross-border securities
transaction between a first party and a second party, the first party being a
seller or a seller's representative and the second party being a buyer or a buyer's
representative, the transaction being defined by a plurality of parameters, the
5   method including the steps of:

(a) receiving a message from the seller or the seller's representative and
a message from the buyer or the buyer's representative, said messages each
setting forth at least one value for at least one parameter relating to the
transaction;

10   (b) storing the received messages;

            (c) comparing the parameter values of the received messages for each of
a plurality of parameters to identify at least one of compatible and incompatible
parameter values; and

            (d) providing an output message indicative of at least one of: (i)
15   identification of compatible parameter values; and (ii) identification of
incompatible parameter values.

33.   The method of claim 32, wherein a parameter comprises a value and a
tolerance for the value.

34.   The method of claim 33 further including the step of determining
whether a parameter received from the first party is within the tolerance for the
value received from the second party.

35.   The method of claim 32, wherein a parameter has a default value.

36.   The method of claim 32, wherein a parameter has a default
tolerance.

37.   The method of claim 32, wherein a parameter identifies the seller
or the seller's representative and the buyer or the buyer's representative.

38.   The method of claim 32, further including the step of assigning a
unique identifier to a particular transaction.

39.   The method of claim 32, further including the step of utilizing a
transaction parameter to identify a custodian for the seller's security.

40.   The method of claim 39, further including the step of utilizing a

transaction parameter to identify a custodian for receipt of the buyer's security.

41.   The method of claim 39, further including the step of notifying

the custodian for the seller's security and the custodian for receipt of the buyer's

security of a consummated transaction.

42.   A method for facilitating settlement of a cross-border securities

transaction between a seller's representative and a buyer's representative, the

securities transaction being defined by a plurality of parameters, the security

being held by a custodian, the method including the steps of:

5   receiving messages from the seller's representative and the buyer's

representative, said messages including parameter values for at least one

parameter relating to the securities transaction;

            storing the parameter values;

            notifying the seller's representative and the buyer's representative of the

10   parameters pertaining to the securities transaction; and

            providing an indication to at least one of the seller's representative and

the buyer's representative of one or more parameter values for the securities

transaction.

43. A method for facilitating settlement of a securities transaction

including the steps of:

(a) receiving transaction parameter messages setting forth one or more

parameter values related to a securities transaction;

5   (b) storing transaction parameter messages;

(c) determining matches between one or more parameter values of any

two or more transaction parameter messages related to the securities

transaction;

(d) transmitting an indication message over the communications

10   mechanism, the indication message specifying at least one of: (i) the existence

of matches between one or more parameter values of the any two or more

transaction parameter messages; and (ii) the non-existence of matches between

one or more parameter values of any two or more transaction parameter

messages.

44. The method of claim 43 further including the steps of:

(a) receiving transaction parameter messages related to a first securities

transaction and transaction parameter messages related to a second securities

transaction;

5   (b) distinguishing incoming transaction parameter messages related to

the first securities transaction from incoming transaction parameter messages

related to the second securities transaction; and

(c) determining compatibility between two or more incoming transaction

parameter messages related to the first securities transaction.

45. The method of claim 44 further including the step of determining

compatibility between two or more incoming transaction parameter messages

related to the second securities transaction.

46. The method of claim 43 further including the steps of:

(a) receiving incoming transaction parameter messages related to a first

securities transaction and specifying at least one of:

(a) a first proposed settlement location,

5   (b) a first proposed source allocation, and

(c) a first proposed amount of net proceeds,

(b) receiving incoming transaction parameter messages related to the

first securities transaction and specifying at least one of:

(d) a second proposed settlement location,

10   (e) a second proposed source allocation, and

(f) a second proposed amount of net proceeds,

(c) determining compatibility by identifying any matches between the

first and second proposed settlement locations, the first and second proposed

source allocations, and the first and second proposed amounts of net proceeds.

15

47. A post-trade, pre-settlement method for facilitating a securities

transaction, the method for use with a system comprising: a computer

processing mechanism and an interfacing mechanism adapted for interfacing

the computer processing mechanism with at least two of the following entities:

5   a seller of a securities instrument, a buyer of the securities instrument, and a

holder of the securities instrument; the method comprising the steps of:

(a) the interfacing mechanism receiving at least one of a notification of

execution (NOE) message and/or a block order notification (BON) message;

and

10   (b) in response to receipt of the NOE and/or BON message from the

interfacing mechanism, the computer providing multilateral data

communications between the at least two entities.

48. The post-trade, pre-settlement method of claim 47 wherein the

multilateral data communications includes data specifying at least one of a

settlement location or venue; a source allocation for the securities transaction;

and an amount of net proceeds for the securities transaction.

5

49. The post-trade, pre-settlement method of claim 47 wherein, for a first

securities transaction, data specifying at least one of:

(a) a first proposed settlement location,

(b) a first proposed source allocation, and

5   (c) a first proposed amount of net proceeds,

are entered into the interfacing mechanism, and, for the first securities

transaction, data specifying at least one of:

(d) a second proposed settlement location,

(e) a second proposed source allocation, and

10   (f) a second proposed amount of net proceeds,

are entered into the interfacing mechanism;

the computer processing mechanism further including a matching

mechanism for identifying any matches between the first and second proposed

settlement locations, the first and second proposed source allocations, and the

15   first and second proposed amounts of net proceeds.

50. The post-trade, pre-settlement method of claim 47 further including

the step of the computer sending a confirmation message to the interfacing

mechanism, the confirmation message identifying matches, if any, between the

first and second proposed settlement locations, the first and second proposed

5   source allocations, and the first and second proposed amounts of net proceeds.

51. The post-trade, pre-settlement method of claim 50 wherein the

interfacing mechanism includes at least a first interface situated within a first

region defined with reference to geographic, economic, and/or political

boundaries, and a second interface not situated within the first region, so as to

5   facilitate a cross-border securities transaction.

52. The post-trade, pre-settlement method of claim 50 further including

the steps of:

(a) for a first securities transaction, entering a first data set specifying at

least one of:

5   (i) a first proposed settlement location,

(ii) a first proposed source allocation, and

(iii) a first proposed amount of net proceeds,

into the interfacing mechanism,

(b) for the first securities transaction, entering a second data set

10   specifying at least one of:

(iv) a second proposed settlement location,

(v) a second proposed source allocation, and

(vi) a second proposed amount of net proceeds,

are entered into the interfacing mechanism;

15   (c) for a second securities transaction, entering a third data set

specifying at least one of:

                    (i) a first proposed settlement location,

                    (ii) a first proposed source allocation, and

                    (iii) a first proposed amount of net proceeds,

20   into the interfacing mechanism;

          (d) for the second securities transaction, entering a fourth data set

specifying at least one of:

                    (iv) a second proposed settlement location,

                    (v) a second proposed source allocation, and

25   (vi) a second proposed amount of net proceeds,

into the interfacing mechanism; and

          (e) matching the first data set to the second data set, matching the third

data set to the fourth data set, and for identifying any matches, as between the

first and second data sets, for the first and second proposed settlement

30   locations, the first and second proposed source allocations, and the first and

second proposed amounts of net proceeds.

53. A method of facilitating settlement of a securities transaction for

use with a system that is adapted to receive, store, and determine matches

between two or more transaction parameter messages each specifying one or

more transaction parameter values related to the securities transaction, the

5   method including the steps of:

(a) inputting data setting forth one or more parameter values related to the securities transaction; the data comprising a transaction parameter message;

(b) receiving an indication message specifying at least one of: (i) the existence of matches between one or more parameter values of the any two or more transaction parameter messages related to the securities transaction; and

10   (ii) the non-existence of matches between one or more parameter values of any two or more transaction parameter messages related to the securities transaction.

15

54. The method of claim 53 wherein the system is further adapted to distinguish incoming transaction parameter messages related to a first securities transaction from incoming transaction parameter messages related to a second securities transaction, and for determining compatibility between two or more

5   incoming transaction parameter messages related to the first securities transaction; the method further including the step of:

inputting transaction parameter messages related to the first securities transaction and transaction parameter messages related to the second securities transaction.

10

55. The method of claim 54 wherein the system is further adapted to determine compatibility between two or more incoming transaction parameter messages related to the second securities transaction.

5

56. The method of claim 53 further including the steps of:

(a) inputting incoming transaction parameter messages related to a first securities transaction and specifying at least one of:

(a) a first proposed settlement location,

5   (b) a first proposed source allocation, and

(c) a first proposed amount of net proceeds,

(b) inputting incoming transaction parameter messages related to the first securities transaction and specifying at least one of:

(d) a second proposed settlement location,

10   (e) a second proposed source allocation, and

(f) a second proposed amount of net proceeds,

the system determining compatibility by identifying any matches between the first and second proposed settlement locations, the first and second proposed source allocations, and the first and second proposed amounts of net proceeds.

15

57. A post-trade, pre-settlement method for facilitating a securities transaction,

the method for use with a system comprising: a computer processing

mechanism and an interfacing mechanism adapted for interfacing the computer

processing mechanism with at least two of the following entities: a seller of a

securities instrument, a buyer of the securities instrument, and a holder of the

securities instrument; the method comprising the steps of:

(a) inputting into the interfacing mechanism at least one of a notification

of execution (NOE) message and/or a block order notification (BON) message;

and

(b) in response to receipt of the NOE and/or BON message from the

interfacing mechanism, the computer providing multilateral data

communications between the at least two entities.

58. The post-trade, pre-settlement method of claim 57 wherein the

multilateral data communications includes data specifying at least one of a

settlement location or venue; a source allocation for the securities transaction;

and an amount of net proceeds for the securities transaction.

59. The post-trade, pre-settlement method of claim 57 wherein, for a

first securities transaction, entering data specifying at least one of:

(a) a first proposed settlement location,

(b) a first proposed source allocation, and

5   (c) a first proposed amount of net proceeds,

into the interfacing mechanism, and, for the first securities transaction, entering

data specifying at least one of:

(d) a second proposed settlement location,

(e) a second proposed source allocation, and

10   (f) a second proposed amount of net proceeds,

into the interfacing mechanism;

receiving a notification from the computer processing mechanism that

identifies any matches between the first and second proposed settlement

locations, the first and second proposed source allocations, and the first and

15 second proposed amounts of net proceeds.

60. The post-trade, pre-settlement method of claim 57 further including

the step of receiving a confirmation message at the interfacing mechanism, the

confirmation message identifying matches, if any, between the first and second

proposed settlement locations, the first and second proposed source allocations,

5 and the first and second proposed amounts of net proceeds.

61. The post-trade, pre-settlement method of claim 60 wherein the

interfacing mechanism includes at least a first interface situated within a first

region defined with reference to geographic, economic, and/or political

boundaries, and a second interface not situated within the first region, so as to

5　facilitate a cross-border securities transaction.

62. The post-trade, pre-settlement method of claim 60 further including

the steps of:

(a) for a first securities transaction, entering a first data set specifying at

least one of:

5   (i) a first proposed settlement location,

                     (ii) a first proposed source allocation, and

                     (iii) a first proposed amount of net proceeds,

into the interfacing mechanism,

(b) for the first securities transaction, entering a second data set

10   specifying at least one of:

                     (iv) a second proposed settlement location,

                     (v) a second proposed source allocation, and

                     (vi) a second proposed amount of net proceeds,

are entered into the interfacing mechanism;

15   (c) for a second securities transaction, entering a third data set

specifying at least one of:

                     (i) a first proposed settlement location,

                     (ii) a first proposed source allocation, and

                     (iii) a first proposed amount of net proceeds,

20   into the interfacing mechanism;

(d) for the second securities transaction, entering a fourth data set

specifying at least one of:

      (iv) a second proposed settlement location,

(v) a second proposed source allocation, and

(vi) a second proposed amount of net proceeds,

into the interfacing mechanism; and

(e) matching the first data set to the second data set, matching the third data set to

5   the fourth data set, and for identifying any matches, as between the first and second data

sets, for the first and second proposed settlement locations, the first and second proposed

source allocations, and the first and second proposed amounts of net proceeds.

63.   A system for facilitating settlement of a securities transaction between a buyer

and a seller, comprising:

(a) a communications mechanism for transmitting and receiving messages from

the buyer and the seller, the messages including one or more parameter

values related to the transaction;

(b) a processing mechanism, coupled to the communications mechanism,

(i) for determining the compatibility of parameter values received in

messages from the buyer and seller, and

(ii) for transmitting, via the communications mechanism, to at least one of

the buyer and the sell, the compatibility determination in part (i);

wherein at least one of said messages is transmitted across geographic, economic, and/or

political boundaries.

64.   The system of claim 63, wherein the processing mechanism further comprises

translating a security identification into a different type of security identification.

65. The system of claim 64, wherein the processing mechanism translates CUSIF into ISIN.

66. The system of claim 64, wherein the processing mechanism translates ISIN into CUSIP.

67. The system of claim 63, further comprising an interfacing mechanism adapted for interfacing the processing mechanism with at least two of the following six entities: a seller of a securities instrument, a representative of the seller of a securities instrument, a buyer of the securities instrument, a representative of the buyer of a securities
5   instrument, a holder of the physical securities instrument, and a recipient of the physical securities instrument.

68. The system of claim 67, wherein the at least two entities are located in different geographic, economic, and/or political locations.

69. The system of claim 68, wherein at least one of the at least two entities is the seller or the buyer.

70. The system of claim 68, wherein at least one of the at least two entities is a representative of the seller or a representative of the buyer.

71. The system of claim 68, wherein at least one of the at least two entities is the holder of the physical securities instrument or the recipient of the physical securities instrument.

72. The system of claim 63, wherein said communications mechanism or said

73. The system of claim 72, wherein the seller, the buyer, and the processing mechanism are in three different international geographic, economic, and/or political locations.

74. The system of claim 72, wherein the representative of the seller, the representative of the buyer, and the processing mechanism are in three different international geographic, economic, and/or political locations.

5

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5

0

FIG. 1

FIG. 2A

A FROM FIG. 2A

PERFORM TRANSLATION OF RECEIVED SECURITY ID
(SEID) TO A PRIMARY SECURITY IDENTIFICATION
CODE AS DEFINED BY MARKET AND/OR SECURITY ⟍110

DOES INCOMING MESSAGE
INCLUDE A UNIQUE MATCH REFERENCE NUMBER
INDICATING THAT THE INCOMING MESSAGE RELATES
TO ANY PREVIOUSLY RECEIVED INCOMING
MESSAGE(S)? 111

YES

NO

B

TO FIG. 2C,
BLOCK 120

COMPARE DATA FIELD(S) OF INCOMING MESSAGE
WITH DATA FIELD(S) OF PREVIOUSLY RECEIVED
MESSAGE(S) TO IDENTIFY ANY PREVIOUSLY
RECEIVED MESSAGE(S) HAVING DATA FIELD(S)
SIMILAR AND/OR IDENTICAL TO THOSE OF THE
INCOMING MESSAGE ⟍112

E

FROM FIG. 2C
BLOCK 114;
FIG. 2E
BLOCK 127

IS THERE A
PREVIOUSLY RECEIVED MESSAGE
HAVING SOME OR ALL DATA FIELD(S) WITH
IDENTICAL AND/OR SIMILAR CONTENT TO
THAT OF THE INCOMING
MESSAGE? 113

NO

YES

C

TO FIG. 2C

D

TO FIG. 2C

FIG. 2B

C FROM FIG. 2B

D FROM FIG. 2B

ASSIGN A UNIQUE MATCH
REFERENCE NUMBER TO THE
RECEIVED MESSAGES HAVING
IDENTICAL AND/OR SIMILAR
CONTENT   ~115

WAIT FOR
ADDITIONAL
INCOMING
MESSAGES   ~114

SYSTEM SENDS NOTIFICATION TO SENDERS OF
ALL INCOMING MESSAGES WHICH WERE
MATCHED AT BLOCK 113. THE NOTIFICATION
INCLUDES THE UNIQUE MATCH REFERENCE
NUMBER ASSIGNED AT BLOCK 115   ~117

E FROM FIG. 2B
BLOCK 112

STORE INCOMING MESSAGE FOR MATCHING TO
FUTURE INCOMING MESSAGE(S)   ~119

END

B FROM FIG. 2B
BLOCK 111

RETRIEVE ALL STORED MESSAGE(S)
WITH UNIQUE MATCH REFERENCE
NUMBERS REFERRING TO SAME
TRANSACTION AS INCOMING
MESSAGE   ~120

F TO FIG. 2D

FIG. 2C

FIG. 2D

H FROM FIG. 2D

WAIT FOR
ADDITIONAL
INCOMING
MESSAGES
~127

E TO FIG. 2B
BLOCK 112

I FROM FIG. 2D

ROUTE ALL
TRANSACTION DETAILS
TO LOCAL MARKET AND/
OR GC AND/OR B/D,
BASED UPON PROFILE
STORED IN TFM
PROCESSOR
~129

END

G FROM FIG. 2D

SEND "INCOMPATIBILITY"
MESSAGE TO ALL PARTIES
IDENTIFIED IN ALL
MESSAGES RETRIEVED AT
BLOCK 120
~131

J TO FIG. 2F

FIG. 2E

FIG. 2F

Abbreviation/Acronym	Description
ABS	Asset Backed Securities
ANNA	Association of National Numbering Agencies
B/D	Broker/Dealer
BIC	Bank Identifier Code
BON	Block Order Notification
CSD	Central Securities Depository
CUSIP	Committee on Security Identification Procedures
DK	Don't Know
DSP	Delivery Separate from Payment
DVP	Delivery Versus Payment
FOP	Free of Payment
FIX	Financial Information Exchange
GC	Global Custodian
GSTPA	Global Straight Through Processing Association
ICSD	International Central Securities Depository
IM	Investment Manager
ISIN	International Securities Identification Number
ISO	International Standards Organisation
MBS	Mortgage Backed Securities
NOE	Notice of Execution
NP	Net Proceeds
PAM	Participant Access Module
RAC	Requirements Advisory Council
RFI	Request for Information
RFP	Request for Proposal
SD	Settlement Details
SEDOL	Stock Exchange Daily Official List
SID	Standing Instruction Database
SIS	SIS SegaInterSettle AG
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TAC	Technical Advisory Council
TBA	To Be Assigned Instruments
TCS	Tata Consultancy Services
TFM	Transaction Flow Manager
TKS	Teknosoft SA

FIG. 3

S. No	Field	Description	C/M /C[1]	Edit Checks
		Sender Details		
1.	Physical Sender Identification	Identifies the physical sender of the message to the TFM. Normally the physical sender of the message will be the same as the actual sender of the message. If the participant is using a concentrator, the party sending the message will be the concentrator. The actual sender of the message will be the participant who is submitting the message through the concentrator.	M	Physical Sender Identification must be a valid and active participant in the TFM. This field will be sent as part of the message header information.
2.	Message Type	Identifies whether the message submitted is a Notice of Execution (NOE) or a Block Order Notification (BON).	M	Valid Values are: ➤ Notice of execution and ➤ Block order notification. This field will be sent as part of the message header information.
3.	Actual Sender Identification	Identifies the actual sender of the message. This field will be specified if the physical sender of the message is different from the actual sender of the message. Otherwise, the actual sender will be assumed to be the same as the physical sender.	C	This field must be specified if the physical sender is different from the actual sender of the message.
		Reference and Trade Identification Details		
4.	Physical Sender Identification of the Trade	Indicates whether the participants want to distinguish their trades sent through multiple physical senders (concentrators) separately or not. Participants that do not want to distinguish their trades sent through multiple concentrators must not specify this field.	O	In the case of a New Block Trade, the Physical Sender Identification of the trade, must be the same as the physical sender identification of the message, if it is specified.
5.	Actual Sender Identification of the Trade	Identifies the actual sender of the trade. If a substituting party is providing the details, the actual sender identification of the trade will be the IM or the B/D. Otherwise this will be the same as the actual sender identification of the message.	O	
6.	Participant Trade	Unique identification for every block trade sent by the	M	All trade reference #s specifically created by the

[1] O – Optional Field, M – Mandatory Field and C – The presence of the field is Conditional on the values specified in other fields.

FIG. 4A

S. No	Field	Description	O/M /C¹	Edit Checks
	Reference #	participant. Participants use the trade reference number to identify their trades uniquely in the TFM. All subsequent messages to the trade must have the participant trade reference #. The trade reference # will be unique for the combination of the actual sender and the physical sender in the TFM.		TFM will start with a "T." The TFM will ensure that the participant trade reference # is unique for every participant. Recycling of the participant trade reference # will depend on the housekeeping period (90 days) in the TFM. So participants must ensure that the recycling of the participant trade reference # does not create duplicates in the TFM.
	Senders Message Reference #	Unique identification of the messages sent by the participant.	M	
8.	Related Reference #	The related reference # will relate to a message reference # that resulted in generation of the message. In all the output messages, the TFM will send the participant's message reference # that triggered the output as the related reference #.	O	
9.	Preparation Date and Time	Indicates the date and time on which the message was prepared	O	
10.	Version of Trade	Specifies the version of the Block Trade.	M	New block trades must have version number of 1. All replacements and cancellations must have a version number later than the current version of the trade.
11.	External (common) Reference #	The reference number that has been externally established and agreed upon by the IM and the B/D (e.g., FIX).	O	
12.	Basket/Program/Portf ollo Reference #	The reference number that identifies all the block trades associated with the basket/program/portfolio trade.	O	This field can be specified if the transaction type is Basket/portfolio or program trade. The B/D will normally specify this field.
13.	Fund-to-Fund Trade Link #	Links the two sides of a fund-to-fund trade.	O	This field can be specified if the processing type is a Fund-to-fund trade.
14.	Function of Message	Indicates whether the block trade is a new block trade, a replacement to an existing block trade or a cancellation of an existing block trade.	M	Valid Values are: ➤ New ➤ Replace ➤ Cancel ➤ Reject

FIG. 4B

S. No	Field	Description	O/M /C¹	Edit Checks
				➤ Revoke Cancel ➤ Revoke Reject ➤ Dispute.
15.	Trade Transaction Type	Indicates the transaction type used by the sender and will determine the transaction processing variation.	O	Valid Values are: ➤ Institutional trade ➤ Basket/portfolio/program trade Default value is Institutional trade.
16.	Processing Type	Indicates the processing type used by the sender and will determine the processing variation.	O	Valid Values are: ➤ Institutional trade ➤ Broker-to-Broker trade ➤ Fund-to-Fund trade ➤ Pre-Allocated Trade. In the case of a Pre-Allocated Trade, the B/D will be expected to submit the Allocations for the Block Trade. Default value is Institutional trade.
		Party Details		
17.	Buy/Sell Indicator	Indicates whether the actual sender is acting as a buyer or a seller.	M	Valid values are: ➤ Buy ➤ Sell. For a buy, the first eight characters of the actual sender's BIC should be the same as the first 8 characters of the buy indicator BIC, with a Buy/Sell Indicator of "BUY." The opposite is true for sell.
18.	Buyer Identification	Identifies the Buyer of the trade.	M	The buyer must be defined as a valid participant in the TFM. The buyer must have a role as either an "IM" or a "B/D" in the TFM. The role of the buyer must be compatible with the processing type used. For example, in processing type "BTB" both the buyer and the seller must have the role of a broker.
19.	Seller Identification	Identifies the Seller of the trade.	M	The Seller must be defined as a valid participant in

FIG. 4C

S. No	Field	Description	O/M /C[1]	Edit Checks
				the TFM. The seller must have role as either an "IM" or a "B/D" in the TFM. The role of the seller must be compatible with the processing type used. For example, in processing type "BTB" both the buyer and the seller must have a role as broker.
Security Identification Details				
20.	Instrument Type	Indicates the classification of the financial instruments.	M	In GSTPA, an ISITC standard code will be used for this field.
21.	Numbering Agency Code	Identifies the numbering agency code used for the security identification.	M	Valid Values as per ISO standard. Indicative values that will be supported by the GSTPA are: ➤ ISIN ➤ US for CUSIP ➤ GB for SEDOL ➤ JP for QUIK ➤ MUTUAL for mutually agreed upon security identification code between the IM and the BD. The mutually agreed identification should be used only if either no identification is established for the security or local market codes are used and no ISIN is issued.
22.	Security Identification Number	Identifies the security within the numbering agency code used.	M	If ISIN is used, then security identification must be defined as a valid and active financial instrument in the TFM. Since ISIN is not listing-specific like SEDOL, participants can use the combination of ISIN and other fields such as settlement location or place of trade either to uniquely identify the security or to internally translate to other numbering agency codes such as SEDOL.
23.	Country of Issue of the Security	Identifies the country of issue for the security.	C	This must be specified, if ISIN is not used as the identifier for the security.
24.	Securities Short Name	This field is applicable where non-ISINs are used, especially for fixed income instruments with local	C	This must be specified if ISIN is not used as the identifier for the security.

FIG. 4D

S. No	Field	Description	O/M /C	Edit Checks
		market identifiers. GSTPA will issue guidelines for using the securities short name like 144/144a.		
25.	Dated Date	Specifies the date from which the interest will accrue.	O	
26.	Floating Rate Note Reset Date	Specifies the date on which the rate on Floating Rate Note will be reset.	O	
27.	Conversion Date	Specifies the conversion date for convertible bonds.	O	
28.	Yield to maturity	Specifies the yield at maturity including interest, etc.	O	
29.	Number of Days Accrued	Specifies the numbers of days for which the interest has accrued.	O	
30.	Method of Interest Computation	Indicates how the interest is to be computed for the security.	O	Valid Values are: ➤ 30/360 Basis ➤ 30/365 Basis ➤ 30/Actual Basis ➤ Actual/30 Basis ➤ Actual/360 Basis ➤ Actual/365 Basis ➤ Actual/Actual Basis ➤ Eurobond Basis.
31.	Odd Coupon Flag		O	Valid Values are: ➤ Yes ➤ No.
32.	Alternate Minimum Tax Flag		O	Valid Values are: ➤ Yes ➤ No.
33.	Convertible Flag	Specifies if the security can be converted to another class of security.	O	Valid Values are: ➤ Yes ➤ No.
34.	Variable Rate Flag	Specifies if the interest rate for the security is variable or not.	O	Valid Values are: ➤ Yes ➤ No.
35.	Special Coupon Indicator	Indicates the coupon types like Zero Interest, Original Issue Discount, Adjustable Rate, etc.	O	Valid Values are: ➤ Zero ➤ Original Issue Discount

FIG. 4E

S. No	Field	Description	O/M /C¹	Edit Checks
36.	Coupon Payment Frequency Indicator	Indicates the payment frequency for the security such as weekly, monthly, quarterly, half yearly, etc.	O	≻ Adjustable Rate. ≻ Valid Values are: ≻ Daily ≻ Weekly ≻ Fortnightly ≻ Monthly ≻ Bimonthly ≻ Quarterly ≻ Semi-annually ≻ Annually ≻ Biannually.
37.	Variable Rate Change Frequency	Indicates the frequency of change of the interest rate for the variable rate securities.	O	≻ Valid Values are: ≻ Daily ≻ Weekly ≻ Fortnightly ≻ Monthly ≻ Bimonthly ≻ Quarterly ≻ Semi-annually ≻ Annually ≻ Biannually.
38.	Form of Securities	Indicates whether the security is a registered or a bearer security.	O	≻ Valid Values are: ≻ Registered ≻ Bearer.
39.	Security Payment Status	Indicates whether the security is fully or partly paid or not.	O	≻ Valid Values are: ≻ Fully Paid ≻ Partly Paid ≻ Not Paid.
40.	Preference to Income	Indicates whether security has any preference to income on assets	O	≻ Valid Values are: ≻ Ordinary/Common ≻ Preferred – Security has a preferred claim on income and assets.
41.	Restrictions	Indicates whether the security has any restrictions on	O	≻ Valid Values are:

FIG. 4F

S. No	Field	Description	O/M /C¹	Edit Checks
		transfer.		
42.	Reset Source	Indicates the re-marketing agent for the security.	O	
43.	Rating Agency	Indicates the rating agency giving the rating for the security.	O	Valid Values are: ➤ Moody's ➤ S&P ➤ Others.
44.	Security Rating	Indicates rating given by the rating agency for the security like "AAA," "BBB," etc.	O	
45.	Flat Default Status		O	
46.	Contract Multiplier	Indicates the factor used to convert contract units to either shares or nominal value.	O	
47.	Pool Identifier	Indicates the number assigned by the issuer of asset backed securities to identify the mortgages.	O	
48.	State of Pool Issuance		O	
	Additional Information for Fixed Income Instruments			All of these fields are used for fixed income instruments.
49.	Security Identification In Local Market	Specifies the security identification used in the local market for Fixed Income Instruments, which may or may not have ISIN numbers.	O	
50.	Currency of Issue	Specifies the currency in which the instrument is issued.	C	An edit check would be used to ensure that it is populated by a valid ISO currency code. This field must be specified for fixed income instruments.
51.	Original Par (Face) Value	Specifies the original face value of the Instrument. This is applicable only in respect to Mortgage Backed Securities (MBS) and Asset Backed Securities (ABS).	C	This field must be specified for asset backed and mortgage backed securities.
52.	Current Factor	Specifies the applicable current factor at the time of the trade for the Instrument. This is applicable only in respect to Mortgage Backed Securities (MBS) and Asset Backed Securities (ABS).	C	This field must be specified for asset backed and mortgage backed securities.
53.	Next Factor	Specifies the applicable factor to be used at the time of settlement. This is applicable only with respect to	C	This field must be specified for asset backed and mortgage backed securities.

FIG. 4G

S. No	Field	Description	O/M /C	Edit Checks
		Mortgage Backed Securities (MBS) and Asset Backed Securities (ABS).		
54.	Date of next Factor	Specifies the date on which the applicable next factor is applied. This is applicable only with respect to Mortgage Backed Securities (MBS) and Asset Backed Securities (ABS).	C	This field must be specified for asset backed and mortgage backed securities.
55.	Issue Date	Specifies the issue date for the instrument.	C	This field must be specified for fixed income instruments.
56.	Maturity Date	Specifies the maturity date of the instrument.	C	This field must be specified for fixed income instruments.
57.	Current Interest Rate	Specifies the interest rate applicable on the instrument.	C	This field must be specified for fixed income instruments.
58.	Next Interest Rate	Specifies the next interest rate applicable on the instrument.	O	
59.	Index	Specifies Index like LIBOR, etc., to be used for the Interest Rate.	O	
60.	Coupon Frequency	Specifies the frequency of the coupon payment.	C	This field must be specified for fixed income instruments.
61.	First Coupon Date	Specifies the first coupon date.	C	This field must be specified for fixed income instruments.
62.	Next Coupon Date	Specifies the next coupon date.	C	This field must be specified for fixed income instruments.
		Trade Details		
63.	Block Quantity Traded (Executed)	The block quantity can be represented as units or nominal value depending on the type of instrument.	M	
64.	Original Block Quantity	Indicates the block quantity that the parties agreed to trade. This will be different from the Block Quantity Traded if the Block was truncated at the end of the day.	O	
65.	Trade Currency	The currency in which the average price is quoted or the currency in which the nominal value is expressed.	M	ISO Currency codes.
66.	Price	The average price for the entire block. The price must normally be represented exclusive of commissions and other charges. Based on further investigations, the	M	

FIG. 4H

S. No	Field	Description	O/M /C¹	Edit Checks
		experiences of other ETC providers and the GSTPA pilot production phase, GSTPA will recommend a standard number of decimal places and rounding algorithms to be used by participants to enable the maximum number of matches. Price can be quoted as a per unit price, a percentage or a yield price.		
67.	Type of Price	Indicates whether the price is a par value price or a nominal value price.	O	Valid Values are: ➤ Par Value ➤ Nominal Value.
68.	Price Precision	Indicates the precision (number of decimal places) used to calculate the price.	O	
69.	Block Gross Amount in Trade Currency	Indicates the Block Gross Amount in the Trade Currency.	M	
70.	Broker Commission in Trade Currency (Currency + Value)	Indicates the commission charged by the B/D.	O	
71.	Forex Rate	Indicates the Forex Rate between the trade currency and the settlement currency.	C	This field must be specified when the B/D has carried out a facilitated Forex on behalf of the IM.
72.	Block Gross Amount in Settlement Currency (Currency + Value)	Is the Gross Amount for the entire block expressed in the settlement currency.	C	This field must be specified if any Forex rate is specified.
73.	Broker Commission in Settlement Currency (Currency + Value)	Indicates the commission charged by the B/D. Since many net issues occur at the level of commissions, this field is specified in the block trade so that any mismatches can be corrected early on in the trade life cycle.	O	Broker Commission must be specified in the settlement currency if any Forex rate is specified.
74.	Trade Date	Is the Trade Date in the executing B/D's location.	M	This field must be either the current processing date or a date within 30 days prior to the current processing date in the TFM. If the date is more than 30 days, (but not later than xxx days) a warning

FIG. 41

S. No	Field	Description	O/M /C¹	Edit Checks
				will be issued.
75.	Trade Time	Is the Trade Time in the executing B/D's location.	O	If the trade date is the same as current processing date, then the GMT equivalent of the trade time must be less than or the same as the current GMT time. If the trade time is not specified, all deadline processing based on trade time will use the trade receipt time in the TFM.
76.	Time Zone of the Trade Time	Indicates the time zone with respect to GMT for the trade date and trade time.	O	Time zone must be between –12:00 and 12:00 hours from GMT. If no value is specified for the time zone, GMT will be assumed. Trades carried out in FIX can specify an UTC time. Participants have to take care of the timing changes on account of day light savings while reporting the time.
77.	Place of Trade	Indicates the exchange or the type of trading like OTC, etc., in which the trade has been executed.	O	As per the SWIFT Handbook, if the security identification is matched on a translated code, the TFM will compare the place of trade and issue a warning if they are different. This will enable participants to check if the TFM has translated and matched dual listed securities correctly.
78.	Trading Session ID	Identifies the specific market trading session used in FIX.	O	
79.	Settlement Date	The date on which the settlement is expected to happen for all of the Allocations of the block trade.	M	The settlement date must be the same as or later than the trade date. If the settlement location is given, the settlement date must be a working date for the location in which the settlement is expected to happen. (A warning is issued if the settlement date is not a working date for the settlement location.)
80.	Method of Settlement	Indicates whether the settlement will be on a FOP, a DVP or a DSP (Delivery Separate from Payment) basis.	M	The method of settlement is agreed between the IM and the B/D. This field will be matched exactly.
81.	Proposed Settlement Location	Indicates the location of broker's settlement agent in which the settlement is expected to happen. Indicates the settlement location that was explicitly or	N	This field must be the BIC of an ICSD or the ISO country code of the market in which settlement is expected to happen.

FIG. 4J

S. No	Field	Description	O/M /C¹	Edit Checks
		implicitly part of the trade agreement. This field is applicable to the NOE only. In most cases, the GC will respond with the same location as that of the B/D in the settlement details. However, in some cases the GC may respond with a different location. In such cases, the settlement details match process will try to determine if there is a bridge between the locations. If there is no bridge available, the B/D and the GC will have to resolve the differences.		
82.	Capacity Indicator	Indicates whether the B/D is acting in its capacity as an agent or a principal. Applicable to NOE only.	O	Valid Values are: ➤ Agency ➤ Principal ➤ Crossing as principal ➤ Crossing as agent ➤ Acting as agent for person other than customer ➤ Acting as agent for both customer and another person ➤ Acting as agent for some executions and as principal for others in the transaction ➤ Risk less principal.
83.	Short Sale Indicator	Indicates if the trade is a short sale or not. Applicable to the NOE only.	O	Valid Values are: ➤ Short sale ➤ Not a short sale ➤ Buy to cover ➤ Undisclosed. Default Value is "Undisclosed."
84.	Clean/Dirty Indicator	Indicates if the price includes or excludes commissions.	O	Valid values are: ➤ Clean ➤ Dirty. Default value is "Clean."
85.	Due to Bill Broker Indicator		O	Valid values are: ➤ Due to Bill Broker.

FIG. 4K

S. No	Field	Description	O/M /C¹	Edit Checks
86.	Cum Bonus Indicator	Indicates whether the trade has been executed Cum or Ex bonus.	O	Valid Values are: ➤ Cum Bonus ➤ Ex Bonus.
87.	Cum Dividend Indicator	Indicates whether the trade has been executed Cum or Ex dividend.	O	Valid Values are: ➤ Cum Dividend ➤ Ex Dividend.
88.	Special Cum Dividend Indicator	Indicates whether a sell trade before ex date is without the coupon and a buy trade after the ex date is with the coupon.	O	Valid Values are: ➤ Sell before ex date without the coupon ➤ Buy after ex date with the coupon.
89.	Cum Rights Indicator	Indicates whether the trade has been executed Cum or Ex rights.	O	Valid Values are: ➤ Cum rights ➤ Ex rights.
90.	Cum Warrants Indicator	Indicates whether the trade has been executed Cum or Ex warrants.	O	Valid Values are: ➤ Cum warrants ➤ Ex warrants.
91.	Warrants Attached Indicator	Indicates whether the security has warrants attached or not.	O	Valid Values are: ➤ Warrants attached ➤ Warrants not attached.
92.	Solicited Flag	Indicates whether the trade is a solicited or an unsolicited trade by the B/D.	O	Valid Values are: ➤ Solicited ➤ Unsolicited.
93.	Primary Market Indicator	Indicates if the trade is a primary market trade or not.	O	Valid Values are: ➤ Primary market trade ➤ Not a primary market trade. Default value is "Not a primary market trade."
	Cancelled Trade Identification			
94.	Physical Sender Identification of the Cancelled Trade		O	

FIG. 4L

SUBSTITUTE SHEET (RULE 26)

S. No	Field	Description	O/M /C¹	Edit Checks
95.	Participant Trade Reference # of the Cancelled Trade	Links to a cancelled trade for MIS purposes. Participants can specify in their new block trades a link to an existing cancelled trade for tracking and MIS purposes. The TFM will include the cancelled trade identification in all outgoing messages so that participant will be able to link previously cancelled trades and allocations.	O	Must exist as a valid cancelled trade for the participant.
Disputed Trade Identification				
96.	Physical Sender Identification of the Disputed Trade		O	
97.	Participant Trade Reference # of the Disputed Trade	Participants can specify a link to an existing unmatched trade in their dispute block message to inform the counterpart of the differences.	C	Must exist as a valid unmatched trade for the participant. Must be specified if the function of the message is in dispute.
98.	Sender to Receiver free flow information	Participants can use this field to send any registration-related details and other details.	O	
Additional particulars not part of the message.				These fields will be added by the system for processing step out trades.
99.	Step Out Indicator	Indicates whether the trade is due to a stepped out Allocation.	O	Valid Values are: ➢ Yes ➢ No Default Value is No.
100.	Step Out Trade Reference #	Identifies the trade whose Allocation is indicated as a step out.	O	
101.	Step Out Trade Allocation Sequence #	Specifically identifies the Allocation within the trade that is stepped out.	O	

FIG. 4M

Field Name	Remarks
Trade Transaction Type and Processing Type	This field should match exactly (e.g., an institutional trade should match with an institutional trade).
Message Type	NOE should match with a BON and vice-versa. In the case of Broker-to-Broker trades, the executing broker must give an NOE and the counterpart broker must give a BON. In the case of Fund-to-Fund trades, the participating IMs will submit a BON and the virtual broker (which could be an IM) will submit the NOE.
Buyer, Seller and Buy/Sell Indicator	Buyer, Seller and buy/sell indicator are matched exactly.
Security Identification Details ➤ Primary Numbering Agency Code ➤ Identification in Primary Numbering Agency Code ➤ Security Identification in the Local Market (if specified by both the parties) ➤ Issue Currency ➤ Place of Trade	Each security, based on the type of instrument and country of issue, will have a Primary Numbering Agency Code. The match will happen in the security identification in the Primary Numbering Agency Code. If participants do not supply the Security Identification in the Primary Numbering Agency Code, the TFM will carry out a translation. If the security identification is matched on a translated code, the TFM will compare the place of trade and issue a warning, if they are different. This will enable participants to verify the correctness of the translation of dual listed securities.
Block Trade Quantity and Original Par Value.	This field will be matched exactly.
Price ➤ Trade Currency ➤ Price ➤ Forex Rate ➤ Settlement Currency ➤ Block Gross Amount External Reference	Participants can indicate in their profiles if they need an exact match on price. Participants can also specify, if they do not need an exact match on price and if they need a tolerance match on settlement amount, whether they would provide the External Reference #s or not. The following cases summarise the matching on price based on profile settings. Case 1: Either or both participants need an exact match on price. The following fields are matched exactly in this case: ➤ Trade Currency ➤ Price ➤ Forex Rate (if specified). Case 2: Neither requires an exact match on price. Both participants want a tolerance match only if they agreed upon external reference #s match. The following fields are matched exactly in

FIG. 5A

Field Name	Remarks
➢	this case: ➢ Settlement Currency ➢ External Reference # The Block Gross Amounts are matched within the lowest of the tolerances specified by the two participants. Case 3: Both participants do not need exact match on price. Either or both participants also do not need to match on the external reference # for a tolerance match on Block Gross Amount. In this case the Settlement Currency is matched exactly and the Block Gross Amount is matched within the lowest of the tolerances specified by the two participants.
Trade Date	This field will be matched exactly.
Settlement Date	This field will be matched exactly.
External Reference #	This field will be matched exactly, if specified by both parties.
Broker Commission	Participants can set up profiles to indicate whether they require a match on broker commissions or not. The cases described for price match will also be applicable for the Broker Commissions. However, Broker Commission will not have a tolerance match. If both participants have indicated that they do not need an exact match on commissions, the TFM will issue a warning if the commissions are different.
Method of Settlement	This field will be matched exactly.

FIG. 5B
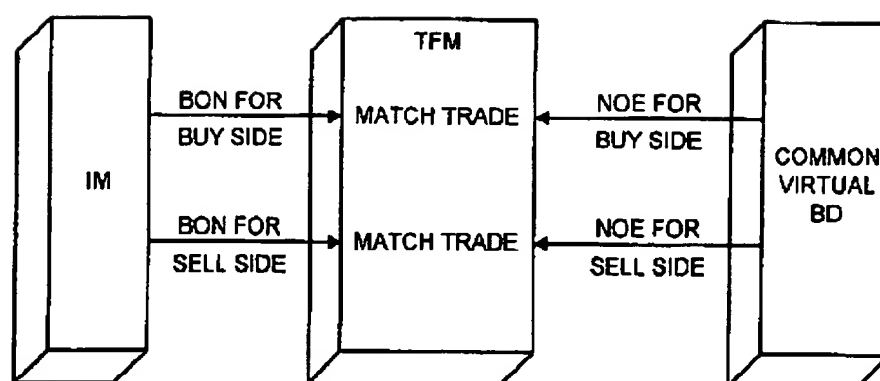
BOTH THE BUY AND SELL SIDES OF THE FUND-TO-FUND TRADE WILL HAVE
A COMMON LINK NUMBER WHICH LINKS BOTH SIDES OF THE TRADE

FIG. 6
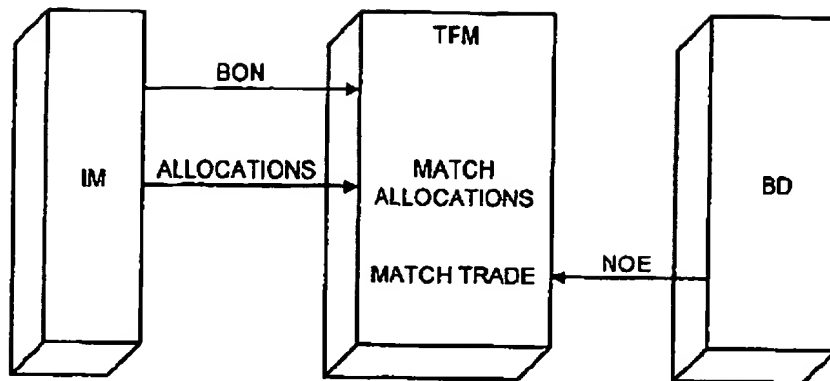
ALLOCATIONS COME ALONG WITH BON, OR SEPARATELY, MATCHING THE
ALLOCATIONS QUANTITY WITH THE BON QUANTITY

FIG. 7
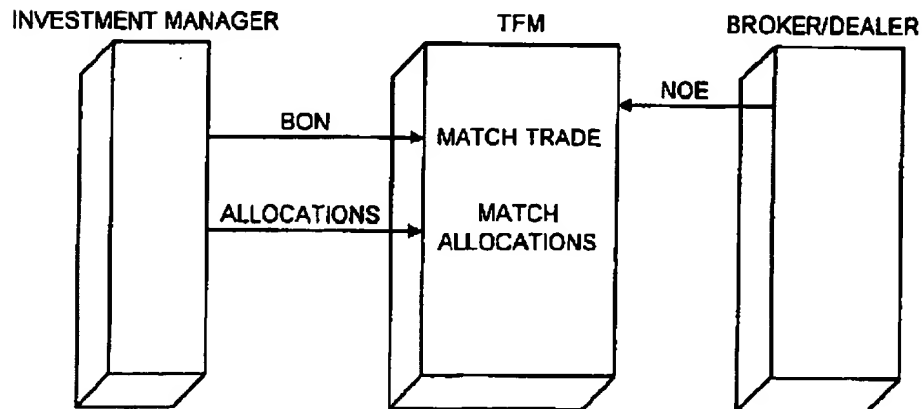
BON ARRIVES AFTER THE NOE, WITH OR WITHOUT ALLOCATIONS,
MATCHING THE ALLOCATIONS QUANTITY WITH THE TRADE QUANTITY

FIG. 8
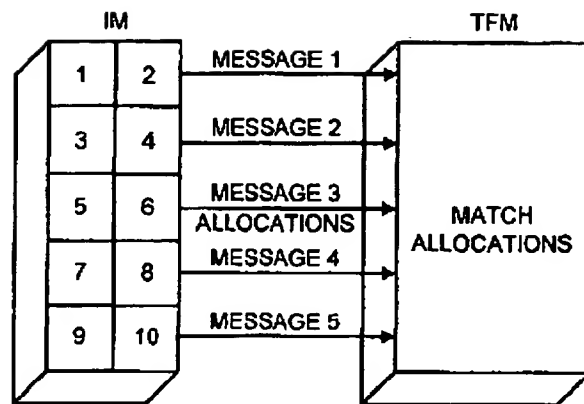
ALLOCATIONS COME IN AS PARTIAL ALLOCATIONS IN 5 MESSAGES

EACH ALLOCATION MESSAGE HAS TWO ALLOCATIONS

ALLOCATIONS QUANTITIES ARE COMPARED WITH THE UNALLOCATED
TRADE QUANTITY

FIG. 9

Input Information

S. NO	Field	Description	O/M /C[2]	Edit Checks
		Sender Details		
1.	Physical Sender Identification	Identifies the physical sender of the message to the TFM. Normally the physical sender of the message will be the same as the actual sender of the message. If participants are using a concentrator, the party sending the message will be the concentrator. The actual sender of the message will be the participant who is submitting the message through the concentrator.	M	The sender must be a valid and active participant in the TFM. This field will be sent as part of the message header information.
2.	Actual Sender Identification	Identifies the actual sender of the message. This field will be specified if the physical sender of the message is different from the actual sender of the message. Otherwise, the actual sender will be assumed to be the same as the physical sender.	O	This field must be specified if the physical sender is different from the actual sender of the message.
		Reference Details, Trade Identification and Control Fields		
3.	Physical Sender Identification of the Trade	Identifies the physical sender through which the participant has sent the trade if the participant wants to use the physical sender as a part of the identification of its trade.	O	
4.	Actual Sender Identification of the trade	Identifies the actual sender of the trade. The actual sender identification of the trade will be the IM or the B/D.		
5.	Participant Trade Reference # (IM or B/D Reference #)	The unique reference # for every trade sent to the TFM by each participant. Participants use this sender's reference number to identify trades uniquely in the TFM.	M	

[2] O – Optional Field, M – Mandatory Field and C – The presence of the field is conditional on the values specified in other fields.

FIG. 10A

S. NO	Field	Description	O/M /C³	Edit Checks
6.	Version of the Trade	The current version of the trade for which Allocations are submitted.	M	The trade referenced by the participant trade reference must be present in the TFM with the same version as indicated in the version of the trade field on the Allocation. In addition to this all the subsequent control fields (Field 6 to 15) specified should match with the fields in the block trade. Please refer to Appendix A for details of how out-of-sequence Allocations (i.e., Allocations coming before a block order notification from the JM) are handled.
7.	Buy/sell Indicator	Indicates whether the actual sender is acting as a buyer or a seller.	M	
8.	Buyer Identification	Identifies the buyer of the trade to which this Allocation relates.	M	
9.	Seller Identification	Identifies the seller of the trade to which this Allocation relates.	M	
10.	Numbering Agency Code	The numbering agency code used for the security identification.	M	
11.	Security Identification Number	Identifies the security within the numbering agency code used.	M	
12.	Block Quantity Traded	The block quantity can be represented as units or nominal value (original face value) depending on the type of instrument.	M	
13.	Trade Currency	The currency in which the average price is quoted or the currency in which the face value is expressed.	M	
14.	Price	The average price for the entire block.	M	
15.	Match Reference #	The unique match reference number established by the TFM for every matched trade.	O	This field is specified if the TFM has matched the NOE and BON and informed each party of the match reference #.
16.	Sender Reference #	Indicates the unique sender reference # for the message.	M	
17.	Preparation Date and Time	Indicates the time at which message was prepared and sent to the TFM.	O	

FIG. 10B

S. NO	Field	Description	O/M /C²	Edit Checks
18.	Function of Message	Indicates whether the message is a new message or if it is either a replace or a deletion of an existing message.	M	Valid Values are: ➤ New ➤ Replace ➤ Delete.
19.	Quantity allocated in this message	Sum of all the allocated quantities in the message.	M	This must be equal to the total of the Allocations for all Allocation sequence numbers in this message. This should be equal to, or less than, the unallocated trade quantity at the time this message is received.
		Allocation details (repeated for each Allocation Sequence Number)		
20.	Allocation Sequence #	The sequence number for the Allocation created by the IM (the B/D in the case of pre-allocated trades) to uniquely identify each Allocation within a Block Trade.	M	This should be a unique sequence number for each Allocation within the Block Trade. Once the trade is fully allocated, the TFM will issue a warning if there are any missing Allocation Sequence #s.
21.	Deleted Allocation Sequence #	This indicates that the Allocation Sequence # is linked to the Allocation Sequence # that was deleted by the participant.	O	This should exist as a valid Allocation Sequence for the Block Trade.
22.	Version of the Allocation	Indicates the current version of the Allocation sequence number submitted by the participant.	M	New Allocations must have version number as 1. All replacements and cancellations must have a version number higher than the current version of the Allocation.
23.	Step In Broker	The Broker who is responsible for the settlement Allocation.	O	This field must be specified, if the allocation is stepped out to a step In broker. TFM will issue a warning to the IM if the step in broker is not a participant of the TFM.
24.	Allocated Quantity	Allocated quantity for this individual Allocation.	M	This must be equal to, or less than, the quantity allocated in this message.
25.	Identification of the Client	Indicates the Identification of the Client.	O	
26.	IM Client Account #	Account number of the IM's underlying client.	C	This field must be specified if the GSTPA Account Number is not specified.

FIG. 10C

S. NO	Field	Description	O/M /C²	Edit Checks
27.	Database of the Access Code	This identifies the vendor's database in which the IM's Client Details are maintained.	C	This field must be specified if the GSTPA Account Number is not specified. Valid values are: ➤ SID ➤ ALERT ➤ B/D Internal Database.
28.	Access Code	The access code relating to the vendor's system where the account is registered.	C	This should be provided if the IM has registered its accounts with SID, Alert, or with another cross-reference service or if the GSTPA # is not specified.
29.	GSTPA Account #	The unique GSTPA account number for the portfolio, which must be used if available.	C	This field is for future use. If this field is specified other account number fields need not be specified as this field will be used by the IM, B/D and GC to cross-reference to their internal account numbers.
30.	Currency to Buy or Currency to Sell	Indicates whether the IM is instructing the GC to buy or sell in the allocated client's base currency.	O	This should be currency to buy if the IM is selling and the currency to sell if the IM is buying.
31.	GC Identification	The GC for the allocated client.	M	The GC must be a valid and active participant in the system acting as a GC or there should be a valid proxy. If there is no valid proxy set up for the GC, the TFM will issue a warning stating that the GC is not a participant of the GSTPA and does not have a valid proxy. In this case, the IM has to specify the right processing type for the Allocation.
32.	Processing Type if GC is not a Participant	IMs can specify how they would like to handle an Allocation if the GC is not a participant in the GSTPA.	O	Valid Values are: ➤ Skip settlement details match. B/D must extract settlement details by accessing the database of the access code. ➤ IM will supply the settlement details and the TFM should match the settlement details.

FIG. 10D

S. NO	Field	Description	O/M /C²	Edit Checks
33.	Release Mechanism if the GC is not a Participant	Indicates how the IM would like the Settlement Instruction to be released if the GC is not a participant.	O	Valid Values are: ➤ Automatically release the instruction in SWIFT FIN format (52x, 53x, 54x) to the GC via the SWIFT FIN network ➤ Prepare the release instruction in a GSTPA standard format and inform the IM so that it can release the instruction to the GC.
34.	Format of the Release Instruction	Indicates in what format the instruction has to be released.	O	Used only when Automatic Release the instruction is set in field 33. Valid Values are: ➤ 52x, 53x ➤ 54x.
35.	GC Client Account #	The client's account number at the GC.	C	This must be specified when the GSTPA account number is not specified.
36.	Commission Type	The commission type arrangement between the IM/Client and the B/D.	M	Valid values are: ➤ Hard ➤ Soft and ➤ Directed. Default value is "Hard."
37.	Broker of Credit	Used to channel directed broker commissions.	C	This field must be specified only if the commission type is "Directed."
38.	Class of account	This indicates the class of account like "Mutual Fund registered in the United States of America" to which the IM Client Account Number belongs. The class of account is used by the TFM to determine which accounting deadline to apply based on the Accounting Agent's profile settings.	O	Standards Committee will decide the valid values.
39.	Accounting Agent/Interested Party	Indicates the Accounting Agent to whom Accounting details of the Allocation have to be reported.	O	This Accounting Agent must be a valid and active participant in the system acting as an Accounting Agent. If the Accounting Agent is not a valid participant in the TFM, the TFM will issue a warning to the IM. This field could repeat if more than one Accounting Agent is associated with an account.

FIG. 10E

S. NO	Field	Description	O/M /C¹	Edit Checks
40.	Deadline for Accounting to the Accounting Agent/Interested Party	Indicates the number of hours after the reporting of the allocation that the TFM should send the accounting details to the accounting agent.	O	This field can be specified, only if the Accounting Agent is specified. This field could repeat if more than one Accounting Agent is associated with an account.
41.	Tax Lot Specification	Identifies a lot for tax purposes.	O	
42.	Sender to Receiver Information	Free text sends information between the Sender and the Receiver of the message.	O	

FIG. 10F
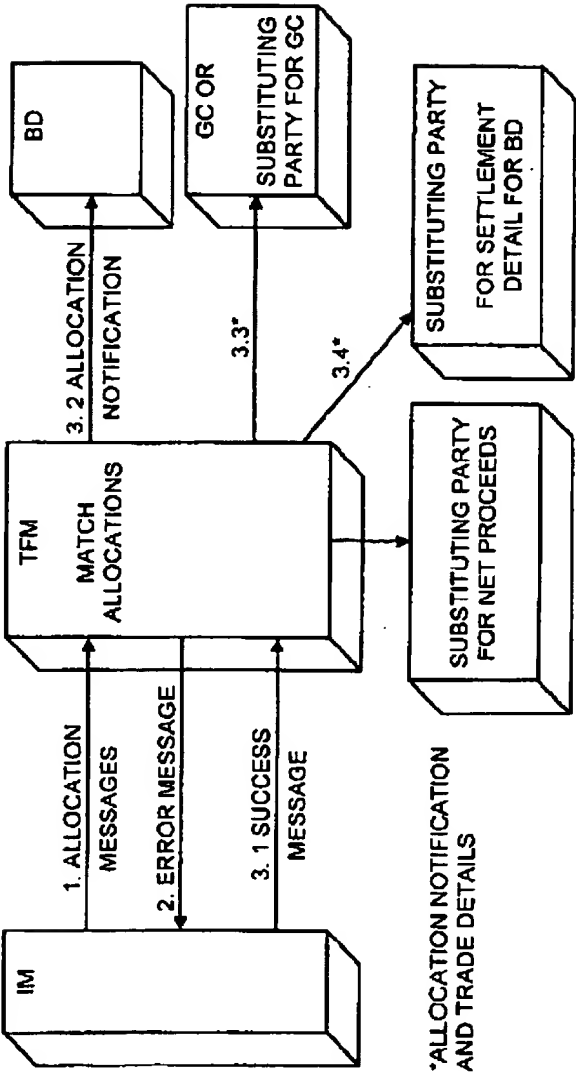
FIG. 11
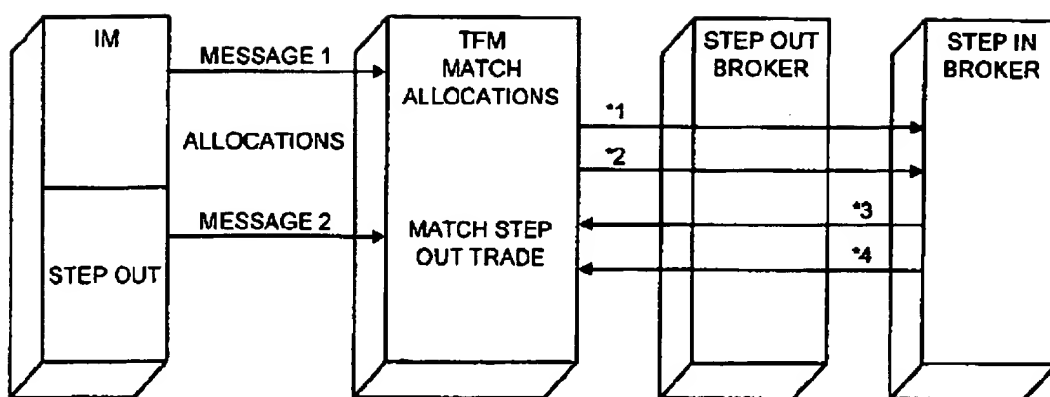
*1 NOTIFICATION OF STEP OUT TRADE WITH BON AND ALLOCATION PARTICULARS WITH NEW TRADE REFERENCE NUMBER

*2 NOTIFICATION OF STEP OUT TRADE FOR BROKER-TO-BROKER LEG DEPENDING ON PROFILE OF STEP OUT BROKER

*3 NOE AND NET PROCEEDS FROM STEP IN BROKER IN RESPONSE TO MESSAGE *1. TFM PERFORMS MATCH WITH MESSAGE *1

*4 NOE AND NET PROCEEDS FROM STEP IN BROKER IN RESPONSE TO MESSAGE *2. TFM PERFORMS MATCH WITH MESSAGE *2

FIG. 12
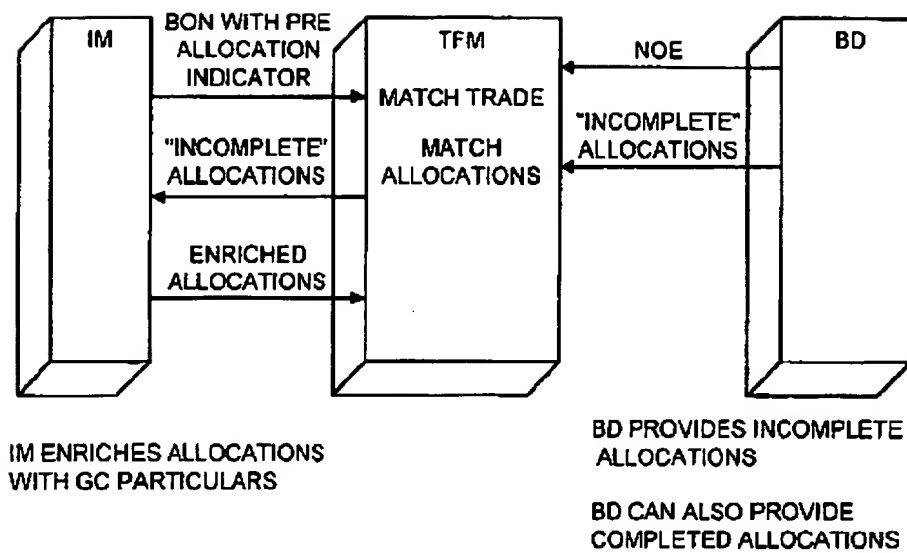
FIG. 13

Normal Process	Changes in the Process
The IM submits Allocations.	The B/D submits Allocations.
Partial Allocations.	No change.
Allocations details are complete with the GC particulars.	Allocation details are incomplete. The GC Id and the GC account number may not be available.
	The TFM sends the incomplete Allocations to the IM for completion.
	The IM completes the Allocations with the GC particulars.
The TFM notifies the B/D and the GC of Allocation particulars.	If Allocation particulars are complete when submitted by the B/D, the TFM notifies the IM and the GC.
The IM can replace the Allocation particulars.	Only the party submitting the Allocation details can replace the details. The IM can not replace the Allocation particulars that were submitted by the B/D.
The GC has a preference to receive the Allocations even if the block trade is not matched.	The GC will be informed about the allocations only after a trade match.

FIG. 14

FIG. 15

S. No	Field	Description	O/M /C	Edit Checks
	Sender Details			
1.	Physical Sender Identification	Identifies the physical sender of the message to the TFM. Normally the physical sender of the message will be the same as the actual sender of the message. If participants are using a concentrator, the party sending the message will be concentrator. The actual sender of the message will be the participant who is submitting the message through the concentrator.	M	The sender must be a valid and active participant in the TFM. This field will be sent as part of the message header information.
2.	Actual Sender Identification	Identifies the actual sender of the message. This field will be specified if the physical sender of the message is different from the actual sender of the message. Otherwise, the actual sender will be assumed to be the same as the physical sender.	O	This field must be specified if the physical sender is different from the actual sender of the message.
	Reference Data, Trade Identification and Control Fields			
3.	Actual Sender Identification of the Trade	Identifies the actual sender of the trade. If the substituting party is providing the net proceeds details, the actual sender identification of the trade will be the IM or the B/D. Otherwise this will be the same as the actual sender identification of the message.	O	
4.	Physical Sender Identification of the Trade	Identifies the physical sender through which the participant has sent the trade, if the participant wants to use the physical sender as a part of the identification of its trade.	O	
5.	Participant Trade Reference # (IM or B/D Reference #)	The unique reference # for every trade sent to the TFM by each participant. Participants use this sender's reference number to identify trades uniquely in the TFM.	M	

³ O – Optional Field, M – Mandatory Field and C – The presence of the field is Conditional on the values specified in other fields.

FIG. 16A

S. No	Field	Description	O/M /C	Edit Checks
6.	Version of the Trade	The current version of the trade for which allocations are submitted.	M	The trade referenced by the physical sender and the participant trade reference must be present in the TFM with the same version as indicated in the version of the trade field. In addition to this all the subsequent control fields (Fields 6 to 14) specified should match with the fields in the block trade.
7.	Buy/Sell Indicator	Indicates whether the actual sender is acting as a buyer or a seller.	M	
8.	Buyer Identification	Identifies the Buyer of the trade to which the Allocation relates.	M	
9.	Seller Identification	Identifies the Seller of the trade to which the Allocation relates.	M	
10.	Numbering Agency Code	The numbering agency code used for the security identification.	M	
11.	Security Identification Number	Identifies the security within the numbering agency code used.	M	
12.	Block Quantity Traded	The block quantity can be represented as units or nominal value (original face value) depending on the type of instrument.	M	
13.	Trade Currency	The currency in which the average price is quoted or the currency in which the face value is expressed.	M	
14.	Price	The average price for the entire block.	M	
15.	Match Reference #	The unique match reference number established by the TFM for every matched trade.	O	This field is specified if the TFM has matched the NOE and BON and informed a match reference # to all the participants to the trade.
16.	Sender Reference #	Identifies the unique reference for the message sent by the participant.	M	
17.	Preparation Date and Time	Identifies the date and time at which the message was prepared.	O	
18.	Function of Message	Indicates whether the message is a new message or if it is either a replace or deletion of an existing message.	M	Valid Values are: ➤ New ➤ Replace ➤ Delete.

Trade Allocation Details (Repeated for each allocation)

FIG. 16B

S. No	Field	Description	O/M /C	Edit Checks
19.	Allocation Sequence #	The sequence number assigned for the allocation.	M	The number must be a valid Allocation sequence number submitted in the trade allocations. This is not required in the case of Broker-to-Broker trades.
20.	Allocation Version #	The current message version of the allocation details submitted by the IM or the B/D in the TFM.	M	This must be the same as the version # of the allocation details submitted by the IM or the B/D. Fields 22-25 should match with fields in Allocation details.
21.	Identification of the Client.	Identifies the underlying client for the Allocation.	M	
22.	IM Client Account #	The account number of the client of the IM.	C	The number must be the same as the IM client account number submitted for the Allocation sequence number in the trade allocations. This field must be specified if the GSTPA account number is not specified.
23.	GSTPA Account #	The unique GSTPA account number for the portfolio must be used, if available.	C	This must be provided if the IM Client account number is not provided.
24.	Allocation Quantity	The allocation quantity can be represented as units or nominal value depending on the type of instrument.	M	The quantity must be the same as the allocation quantity submitted for the Allocation sequence number in the trade allocations.
25.	Net Proceeds Version #	The current message version of the net proceeds.	M	If the participant submits new Net Proceeds, it must be version 1. If there is a cancellation and a replace, the version number must be greater than the current active version of the Net Proceeds.
	Gross Proceeds, Net Proceeds and all the components used to arrive at Net Proceeds from the Gross Proceeds must be specified in the settlement currency. These can be optionally specified in the trade currency after supplying the necessary exchange rate. The TFM will use the amounts specified only in the settlement currency for mathematical accuracy.			
26.	Value Date and Time	Indicates the date on which the cash is supposed to settle when it is different from the securities.	O	
27.	Forex Rate	Indicates the exchange rate between the trade and settlement currency.	O	
28.	Gross Proceeds for the Allocation	Contains price times allocated quantity for the allocation.	M	
29.	Broker Commission	The commission charged by the B/D at an allocated level.	O	
30.	Accrued Interest	Accrued interest for fixed income securities.	C	This field is used only for fixed income securities.

FIG. 16C

S. No	Field	Description	O/M /C?	Edit Checks	
31.	Country/National/Fed eration Tax		o		
32.	Stamp Duty		o		
33.	Registration Charge		o		
34.	Other Charges		o		
35.	Charges and Fees		o		
36.	Local Broker's Commission		o		
37.	Issue Discount Allowance		o		
38.	Payment Levy Tax		o		
39.	Matching/Confirmatio n Fee		o		
40.	Margin		o		
41.	Postage		o		
42.	Regulatory Fees		o		
43.	Shipping		o		
44.	Special Concessions		o		
45.	Stock Exchange Tax		o		
46.	Transfer Tax		o		
47.	Transaction Tax		o		
48.	Value Added Tax		o		
49.	Withholding Tax		o		
50.	Mark-up		o		
51.	Consumption Tax		o		

FIG. 16D

S. No	Field	Description	O/M /C	Edit Checks
52.	Accrued Capitalisation		O	
53.	Resulting from FX		O	
54.	Net Gain/Loss		O	
55.	Net Proceeds	Contains the amount arrived at by adjusting all the charges from the gross amount. This amount is used as the settlement amount.	M	
56.	Original Currency Net Proceeds	Indicates the Net Proceeds in the original currency.	O	
57.	Sender to Receiver Information	Free text information passed between the sender and the receiver of the message.	O	

FIG. 16E

Prevailing User Tolerance Decision Table

Buyer bilateral tolerance amount specified for seller	Seller bilateral tolerance amount specified for Buyer	Buyer unilateral tolerance amount specified	Seller unilateral tolerance amount specified	Tolerance to be used for Buyer	Tolerance to be used for Seller
Yes	Yes	Not relevant	Not relevant	Bilateral	Bilateral
Yes	No	Not relevant	Yes	Bilateral	Unilateral
		Not relevant	No	Bilateral	0 (Zero)
No	Yes	Yes	Not relevant	Unilateral	Bilateral
		No	Not relevant	0 (Zero)	Bilateral
No	No	Yes	Yes	Unilateral	Unilateral
		Yes	No	Unilateral	0 (Zero)
		No	Yes	0 (Zero)	Unilateral
		No	No	0 (Zero)	0 (Zero)

FIG. 17

Prevailing Amount Decision Table

Difference a within seller tolerance	Difference amount within buyer tolerance	Seller Preference	Buyer Preference	Prevailing amount	Match status	Refer Example #
No	No	Not relevant	Not relevant	None	Match fail	4
Yes	No	Mine	Not relevant	None	Match fail	9
		Counterpart	Not relevant	Buyer	Match	7,8
		Neutral	Not relevant	Buyer	Match	10
No	Yes	Not relevant	Mine	None	Match fail	5
		Not relevant	Counterpart	Seller	Match	6
		Not relevant	Neutral	Seller	Match	11
Yes	Yes	Mine	Mine	None	Match fail	12
		Counterpart	Mine	Buyer	Match	13
		Neutral	Mine	Buyer	Match	14
		Mine	Counterpart	Seller	Match	15
		Counterpart	Counterpart	Seller	Match	16
		Neutral	Counterpart	Seller	Match	17
		Mine	Neutral	Seller	Match	18
		Counterpart	Neutral	Buyer	Match	19
		Neutral	Neutral	Seller	Match	20

FIG. 18

The following flowchart depicts the Net Proceeds match process:

FIG. 19

FIG. 20

	Seller	Buyer
Net Amount	550	550
Difference	0	0
Market tolerance	Not applicable	Not applicable
User Tolerance	Not applicable	Not applicable
Difference within tolerance	Not applicable	Not applicable
Preference	Not applicable	Not applicable
Prevailing amount	Not applicable	Not applicable
Adjustment to internal records	Not applicable	Not applicable
Result	Exact Match	Exact Match

FIG. 21

	Seller	Buyer
Net Amount	550	555
Difference	5	5
Market tolerance	10	10
User Tolerance	Not applicable	Not applicable
Difference within tolerance	Not applicable	Not applicable
Preference	Not applicable	Not applicable
Prevailing amount	Not applicable	Not applicable
Adjustment to internal records	Not applicable	Not applicable
Result	Match w/in Mkt. tolerance	Match w/in Mkt. tolerance

FIG. 22

	Seller	Buyer
Net Amount	550	540
Difference	10	10
Market tolerance	10	10
User Tolerance	Not applicable	Not applicable
Difference within tolerance	Not applicable	Not applicable
Preference	Not applicable	Not applicable
Prevailing amount	Not applicable	Not applicable
Adjustment to internal records	Not applicable	Not applicable
Result	Match w/in Mkt. tolerance	Match w/in Mkt. tolerance

FIG. 23

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	10	10
Difference within tolerance	No	No
Preference	Counterpart	Neutral
Prevailing amount	None	None
Adjustment to internal records	NA	NA
Result	Match Fail	Match Fail

FIG. 24

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	10	50
Difference within tolerance	No	Yes
Preference	Counterpart	Mine
Prevailing amount	None	None
Adjustment to internal records	NA	NA
Result	Match Fail	Match Fail

FIG. 25

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	10	50
Difference within tolerance	No	Yes
Preference	Counterpart	Counterpart
Prevailing amount	550 (Seller)	550 (Seller)
Adjustment to internal records	0	50
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 26

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	10
Difference within tolerance	Yes	No
Preference	Counterpart	Counterpart
Prevailing amount	500 (Buyer)	500 (Buyer)
Adjustment to internal records	-50	0
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 27

	Seller	Buyer
Net Amount	550	580
Difference	30	30
Market tolerance	10	10
User Tolerance	40	20
Difference within tolerance	Yes	No
Preference	Counterpart	Neutral
Prevailing amount	580 (Buyer)	580 (Buyer)
Adjustment to internal records	30	0
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 28

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	10
Difference within tolerance	Yes	No
Preference	Mine	Counterpart
Prevailing amount	None	None
Adjustment to internal records	NA	NA
Result	Match Fail	Match Fail

FIG. 29

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	40
Difference within tolerance	Yes	No
Preference	Neutral	Neutral
Prevailing amount	500 (Buyer)	500 (Buyer)
Adjustment to internal records	-50	0
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 30

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	40	50
Difference within tolerance	No	Yes
Preference	Counterpart	Neutral
Prevailing amount	550 (Seller)	550 (Seller)
Adjustment to internal records	0	50
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 31

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	50
Difference within tolerance	Yes	Yes
Preference	Mine	Mine
Prevailing amount	None	None
Adjustment to internal records	NA	NA
Result	Match Fail	Match Fail

FIG. 32

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	50
Difference within tolerance	Yes	Yes
Preference	Counterpart	Mine
Prevailing amount	500 (Buyer)	500 (Buyer)
Adjustment to internal records	-50	0
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 33

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	50
Difference within tolerance	Yes	Yes
Preference	Neutral	Mine
Prevailing amount	500 (Buyer)	500 (Buyer)
Adjustment to internal records	-50	0
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 34

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	50
Difference within tolerance	Yes	Yes
Preference	Mine	Counterpart
Prevailing amount	550 (Seller)	550 (Seller)
Adjustment to internal records	0	50
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 35

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	50
Difference within tolerance	Yes	Yes
Preference	Counterpart	Counterpart
Prevailing amount	550 (Seller)	550 (Seller)
Adjustment to internal records	0	50
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 36

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	50
Difference within tolerance	Yes	Yes
Preference	Neutral	Counterpart
Prevailing amount	550 (Seller)	550 (Seller)
Adjustment to internal records	0	50
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 37

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	50
Difference within tolerance	Yes	Yes
Preference	Mine	Neutral
Prevailing amount	550 (Seller)	550 (Seller)
Adjustment to internal records	0	50
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 38

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	50
Difference within tolerance	Yes	Yes
Preference	Counterpart	Neutral
Prevailing amount	500 (Buyer)	500 (Buyer)
Adjustment to internal records	-50	0
Result	Match w/in user tolerance	Match w/in user tolerance

FIG. 39

	Seller	Buyer
Net Amount	550	500
Difference	50	50
Market tolerance	10	10
User Tolerance	50	50
Difference within tolerance	Yes	Yes
Preference	Neutral	Neutral
Prevailing amount	550 (Seller)	550 (Seller)
Adjustment to internal records	0	50
Result	Match w/in user tolerance	Match w/in user tolerance

PROCESS OVERVIEW

BD

1. NOE WITH PROPOSED SETTLEMENT LOCATION, METHOD OF DELIVERY INDICATOR

3. ALLOCATION NOTIFICATION

4. NP MATCH NOTIFICATION

5. SETTLEMENT DETAILS MESSAGE

7. NOTIFY SETTLEMENT MATCH

8. SETTLEMENT RELEASE DETAILS

TFM

MATCH SETTLEMENT

IM

1. BON WITH METHOD OF DELIVERY INDICATOR

2. ALLOCATION DETAILS GIVING GC DETAILS

3. PROPOSED SETTLEMENT LOCATION WITH ALLOCATION DETAILS

4. NP MATCH NOTIFICATION

5. SETTLEMENT DETAILS MESSAGE

7. NOTIFY SETTLEMENT MATCH

8. SETTLEMENT RELEASE DETAILS

GC

LOCAL AGENT

9. RELEASE SETTLEMENT INSTRUCTION

LOCAL CUSTODIAN

9. RELEASE SETTLEMENT INSTRUCTION

FIG. 40

S. NO	Field	Description	O/M /C[4]	Edit Checks
		Sender Details		
1.	Physical Sender Identification	Identifies the physical sender of the message to the TFM. Normally the physical sender of the message will be the same as the actual sender of the message. If participants are using a concentrator, the party sending the message will be the participant who is submitting the message through the concentrator. The actual sender of the message will be the participant who is submitting the message through the concentrator.	M	The sender must be a valid and active participant in the TFM. This field will be sent as part of the message header information.
2.	Actual Sender Identification	Identifies the actual sender of the message. This field will be specified if the physical sender of the message is different from the actual sender of the message. Otherwise, the actual sender will be assumed to be same as the physical sender.	O	This field must be specified if the physical sender is different from the actual sender of the message.
		Reference Details, Trade Identification and Control Fields		
3.	Actual Sender Identification of the Trade	Identifies the actual sender of the trade. If a substituting party is providing the settlement details, the actual sender identification of the trade will be the IM or the B/D. Otherwise this will be the same as the actual sender identification of the message.	O	
4.	Physical Sender Identification of the Trade	Identifies the physical sender through which the participant has sent the trade, if the participant wants to use physical sender as part of the identification or its trade.	O	
5.	Participant Trade Reference # (IM or B/D Reference #)	The unique # for every trade sent by the participant. Participants use this sender's reference number to identify trades uniquely in the TFM.	M	
6.	Version of the Trade	The current version of the trade for which the settlement details is submitted.	M	The trade referenced by the physical sender and the participant trade reference must be present in the TFM with the same version as indicated in the version of the trade field. In addition to this all the subsequent control fields (Fields 6 to 15) specified should match with the fields in the block trade.
7.	Buy/Sell Indicator	Indicates whether the actual sender is acting as a	M	

[4] O – Optional Field, M – Mandatory Field and C – The presence of the field is Conditional on the values specified in other fields.

FIG. 41A

S. NO	Field	Description	O/M /C	Edit Checks
		buyer or a seller.		
8.	Buyer Identification	Identifies the Buyer of the trade to which the Settlement details relates.	M	
9.	Seller Identification	Identifies the Seller of the trade to which the Settlement details relates.	M	
10.	Numbering Agency Code	The numbering agency code used for the security identification.	M	▶
11.	Security Identification Number	Identifies the security within the numbering agency code used.	M	
12.	Settlement Date	Indicates the date on which the settlement is expected to happen for all the allocations of the block trade.	M	
13.	Method of Settlement	Indicates the settlement method as DVP, FOP or DSP.	M	
14.	Settlement Currency	Indicates the currency in which the gross amount for the entire block is computed.	M	
15.	TFM Match Reference #	Unique match reference number established by the TFM for every matched trade.	O	Use of this reference must be encouraged if available at the time.
16.	Allocation Sequence #	Unique sequence number of the allocation for the trade.	M	The number must be a valid allocation sequence number submitted in the trade allocations. This is not required in the case of Broker-to-Broker trades.
17.	Net Proceeds Version #	The current message version of the Net Proceeds.	O	Must be the current active version for the Net Proceeds message.
18.	Allocation Version #	Current message version of the allocation.	M	Must be the current active version for the allocation. Fields 23-26 should match with fields in Allocation details.
19.	Sender's Message Reference #	Identifies the unique reference for the message sent by the participant.	M	
20.	Preparation Date and Time	Identifies the date and time at which the message was prepared.	O	
21.	Function of the Message	Indicates whether the settlement details message is a new message or a replacement or a deletion of an existing message.	M	Valid values are: ▶ New ▶ Replace ▶ Delete.
22.	Settlement Details Version #	Current message version of the settlement details. It is used mainly in the case of replace and delete messages.	M	Must be greater in value than the current active message in the TFM.
23.	Identification of the Client	Identifies the underlying client for the Allocation.	O	

FIG. 41B

S. NO	Field	Description	O/M /C	Edit Checks
24.	JM Client Account #	The account number of the client of the JM.	C	
25.	GSTPA Account #	The unique GSTPA account number for the portfolio, which must be used if available.	C	
26.	Allocation Quantity	Allocation quantity can be represented as units or nominal value depending on the type of instrument.	M	
		Settlement Details		
27.	GC Client Account #	The account number reference maintained by the GC for the allocated client.	C	
28.	Delivery Date	Indicates 48-hour rule.	O	
29.	Exchange	Indicates the exchange where the trade has been executed.	O	
30.	Trade Regulator			
31.	Settlement Location	For ICSDs, this is expressed as a BIC and for Local Market settlement, this is expressed as an ISO Country Code.	M	Must be a valid settlement location maintained by the TFM.
		Local Agent Details		
32.	Security Agent at Location	The Sub-Custodian is the security agent if the GC is submitting the details. The Clearing B/D is the security agent if the B/D is submitting the details.	M	
33.	Account at Security Agent	Identifies the safe custody account maintained by the GC or the B/D with the Agent at Location.	M	
34.	Cash Agent at Location	Cash correspondent for settling in the specified currency.	C	This must be specified if the method of settlement is "DSP."
35.	Account at Cash Agent	Identifies the Cash account maintained by the GC or the B/D with the Agent at Location.	C	This must be specified if the method of settlement is "DSP."
36.	Income Account	Identifies the Income Account at the Cash Agent.	O	
37.	Identification of the clearing organisation	Identifies the clearing organisation where the local agent maintains the account	O	
38.	Local agent Identification with the clearing organisation	Identifies the Local agent Identification with the clearing organisation	O	
		Type of Settlement Transaction Indicators		
39.	Settle a Trade Flag	Indicates whether to settle the allocation or not	O	Valid Values are: ➢ Yes

S. NO	Field	Description	O/M /C	Edit Checks
40.	Withdrawal Indicator	Indicates any required withdrawals from specified sub-accounts.	O	> No. Default Value is "Yes."
41.	Reporting Only Indicator	Indicates whether the trade is for reporting purposes only.	O	Valid Values are: > Yes > No. Default Value is "No."
42.	External or Internal Account Transfer Indicator	Indicates whether the transaction is an external or an internal account transfer	O	Valid Values are: > Only for Reporting. Valid Values are: > External Account Transfer > Internal Account Transfer.
43.	Turnaround Indicator	Indicates whether the transaction is a part of a turn around or not.	O	Valid Values are: > Turnaround > Not a Turnaround.
44.	Pair-off Indicator	Indicates whether the transaction is a part of a pair off or not.	O	Valid Values are: > Pair-off > Not a Pair-off.
45.	Placement Indicator	Indicates whether the transaction is a part of a placement or not.	O	Valid Values are: > Part of a Placement > Not a part of a Placement.
	Settlement Conditions			
46.	Unexposed Indicator	Indicates whether the delivery can be effected until cash is received or not.	O	Valid Values are: > Exposed > Unexposed.
47.	Special Delivery Indicator	Indicates whether the trade is to be settled with a special delivery or not.	O	Valid Values are: > Special Delivery > Not a Special Delivery.
48.	Free Clean Settlement Indicator	Indicates whether the trade will be settled free of payment, but a clean payment order will be sent.	O	Valid Values are: > Free Clean Settlement > Not a Free Clean Settlement.
49.	**Fungible Codes**		O	
50.	Guaranteed Delivery Indicator	Indicates whether the trade is to be settled with guaranteed settlement or not.	O	Valid Values are: > Guaranteed Delivery.
51.	Physical Settlement Indicator	Indicates whether the securities are physically settled.	O	Valid Values are: > Physical Delivery > Book-entry Delivery.
52.	Partial Settlement Indicator	Indicates whether partial settlement is allowed or not.	O	Valid Values are: > Partial Settlement is allowed > Partial Settlement is not allowed.
53.	Split Currency	Indicates whether the settlement for the trade has to happen in two different currencies	O	

S. NO	Field	Description	O/N /C'	Edit Checks
54.	Sender to Receiver Information	Enables the participant to provide additional information	O	

FIG. 41E

S. No	Field	Description	O/M /C[5]	Edit Checks
		Sender Details		
1.	Physical Sender Identification	Identifies the physical sender of the message to the TFM. Normally the physical sender of the message will be the same as the actual sender of the message. If participants are using a concentrator, the party sending the message will be the concentrator. The actual sender of the message will be the participant who is submitting the message through the concentrator.	M	The sender must be a valid and active participant in the TFM. This field will be sent as part of the message header information.
2.	Actual Sender Identification	Identifies the actual sender of the message. This field will be specified if the physical sender of the message is different from the actual sender of the message. Otherwise, the actual sender will be assumed to be the same as the physical sender.	O	This field must be specified if the physical sender is different from the actual sender of the message.
		Reference Data and Trade Identification		
3.	Actual Sender Identification of the Forex Trade	Identifies the actual sender of the trade. This will be same as the actual sender identification of the message.	O	Must be the same as the actual sender identification of the message.
4.	Physical Sender Identification of the Forex Trade	Identifies the physical sender through which the participant has sent the trade if the participant wants to use the physical sender as a part of the identification of its trade.	O	
5.	Participant Forex Trade Reference #	The unique # for every Forex trade sent by the participant. Participants use the trade reference number to identify trades uniquely in the TFM.	M	

FIG. 42A

[5] O – Optional Field, M – Mandatory Field and C – The presence of the field is Conditional on the values specified in other fields.

S. No	Field	Description	O/M /C[1]	Edit Checks
6.	Version of the Forex Trade	Indicates the current version of the Forex trade.	M	For new messages, the version must be 1. In the case of replacements and cancels the version should be higher than the current version of the Forex trade.
7.	Sender Reference #	Identifies the unique reference for the message sent by the participant.	M	
8.	Related Reference #	Identifies the instruction to which the current message is related.	O	
9.	Preparation Date and Time	Identifies the date and time at which the message was prepared.	O	
10.	Function of Message	Indicates whether the message is a new message or a replace or a deletion of an existing message.	M	Valid Values are: ➢ New ➢ Replace ➢ Cancel.
11.	Scope of Operation	Indicates the Type of Foreign exchange contract.	M	Valid Values are: ➢ Settlement Contract ➢ Forward Contract.
12.	Open Indicator	Indicates whether the Forex contract is an opening contract or a closing contract.	C	This field must be specified for forward contracts. Valid Values are: ➢ Open ➢ Partial Close or Final Close.
13.	Final Close Indicator	Indicates whether the Forex contract is a final close or not.	C	This field must be specified for forward contracts. Valid Values are: ➢ Final Close ➢ Not a Final Close.
14.	Net Settlement Indicator	Indicates whether the settlement for the Forex contract is on a net basis.	C	This field must be specified for forward contracts. Valid Values are: ➢ Net Settlement ➢ Gross Settlement.
15.	Executing Broker	Indicates the B/D for the Forex Deal.	M	Must be a valid BIC.
16.	Trade Date	The date on which the Forex deal was agreed between the IM and B/D.	M	
17.	Value Date		M	
18.	Exchange Rate	Indicates the agreed upon exchange rate between the IM and B/D.	M	

FIG. 42B

S. No	Field	Description	O/M /C⁵	Edit Checks
		Trade Allocation Details (Repeated for each allocation of the Forex trade)		
19.	Allocation Sequence #	The sequence number assigned for the allocation of the Forex trade.	M	
20.	Allocation Version #	The current version of the allocation details submitted by the IM.	M	For new messages, the version must be 1. In the case of replacements and cancellations the version should be higher than the current version of the Allocations.
21.	Identification of the Client.	Identifies the underlying client for the Allocation.	O	
22.	IM Client Account #	The account number of the client of the IM.	C	
23.	GSTPA Account #	The unique GSTPA account number for the portfolio must be used, if available.	C	This must be provided if the IM Client account number is not provided.
24.	Currency, Amount Bought		M	
25.	Delivery Agent	Identifies the financial institution from which the payer will transfer the amount bought.	M	Must be a valid BIC.
26.	Intermediary	Identifies the intermediary used for the transfer of funds.	O	Must be a valid BIC.
27.	Receiving Agent	Identifies the financial institution where the payee will receive the amount bought.	O	Must be a valid BIC.
28.	Currency, Amount Sold		M	
29.	Delivery Agent	Indicates the financial institution from which the payer will transfer the amount sold.	O	Must be a valid BIC.
30.	Intermediary	Indicates the intermediary used for the transfer of funds.	O	Must be a valid BIC.
31.	Receiving Agent	Indicates the financial institution where the payee will receive the amount sold.	M	Must be a valid BIC.
32.	Beneficiary Institution	Indicates the beneficiary institution in favour of which payment is done.	O	Must be a valid BIC.
33.	GC for the Client	Identifies the GC for the Client.	M	Must be a valid GC in the TFM.
34.	GC Client Account Number	Identifies the account of the Client at the GC.	C	This field must be specified if the GSTPA Account # is not specified.
35.	Accounting Agent for the Client	Identifies the Accounting Agent for the Client.	O	

FIG. 42C

S. No	Field	Description	O/M /C's	Edit Checks
36.	Executing Broker's Reference		O	
37.	Contact Information		O	
38.	Sender to Receiver Information		O	
	Reference to Previous Forex trades (for each securities trade linked)			
39.	Physical Sender Identification of the Forex Trade	Identifies the physical sender through which the participant has sent the trade, if the participant wants to use physical sender as part of the identification of its trade.	O	
40.	Actual Sender Identification of the Forex Trade	Identifies the actual sender of the trade. This will be same as the actual sender identification of the trade.	O	Must be the same as the actual sender identification of the trade.
41.	Participant Forex Trade Reference #	Indicates the linked Forex trade reference #.	O	
	Settlement Details (to be used only for the closure of a forward contract)			
42.	Gain Loss Indicator	Indicates for a closing contract if there is a gain or a loss	C	This field must be specified for closing Forex trades. Valid Values are: ➤ Gain ➤ Loss.
43.	Currency and Amount Gained or Lost		C	This field must be specified for closing Forex trades.
44.	Delivery Agent	Indicates the financial institution from which the payer will transfer the amount to be settled.	O	Must be a valid BIC. Applicable in case of a Gain.
45.	Intermediary	Indicates the intermediary used for the transfer of funds.	O	Must be a valid BIC.
46.	Receiving Agent	Indicates the financial account and account where the payee will receive the amount to be settled.	O	Must be a valid BIC. Applicable in case of a Loss.
47.	Beneficiary Institution	Indicates the beneficiary institution in favour of which payment is done.	O	Must be a valid BIC.
	Link References to security trades (Repeated for each linking securities trades)			
48.	Physical Sender Identification of the Security Trade	Identifies the physical sender through which the participant has sent the trade, if the participant wants to use the physical sender as part of the identification of its trade.	O	

FIG. 42D

S. No	Field	Description	O/M /C^5	Edit Checks
49.	Actual Sender Identification of the Security Trade	Identifies the actual sender of the trade. This will be same as the actual sender identification of the trade.	O	Must be the same as the actual sender identification of the trade.
50.	Participant's Trade Reference #	Identifies the participants block trade in the TFM.	O	
51.	Allocation Sequence #	Identifies the Allocations within the Block Trade to the Client.	O	The participant trade reference # and Allocation sequence should exist as a valid Allocation for security block trade in the TFM. The security trade allocation should also be to the same client to which the Forex trade is allocated.

FIG. 42E

FIG. 43

BD   TEM   TM

1. NOE

2. BON

3. ALLOCATIONS
NOTIFICATION

3. ALLOCATIONS

6. CANCELLATION
REQUEST NOTIFICATION

5. CANCEL BON

9. CANCEL TRADE
NOTIFICATION

8. CANCEL NOE

10. CANCEL TRADE
NOTIFICATION

GC

4. ALLOCATIONS
NOTIFICATION

7. CANCELLATION REQUEST
NOTIFICATION

11. CANCEL TRADE
NOTIFICATION

FIG. 44

BD   TFM   IM

1. NOE

2. ALLEGED NOE

3. DO NOT KNOW NOE

4. CANCEL NOE

5. CANCELLED
NOTIFICATION

6. ALLEGED NOE
CANCELLATION NOTIFICATION

FIG. 45
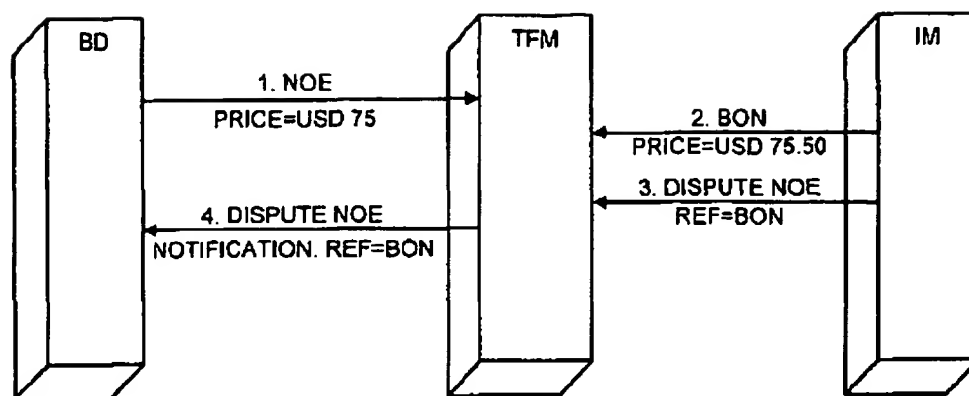
FIG. 46
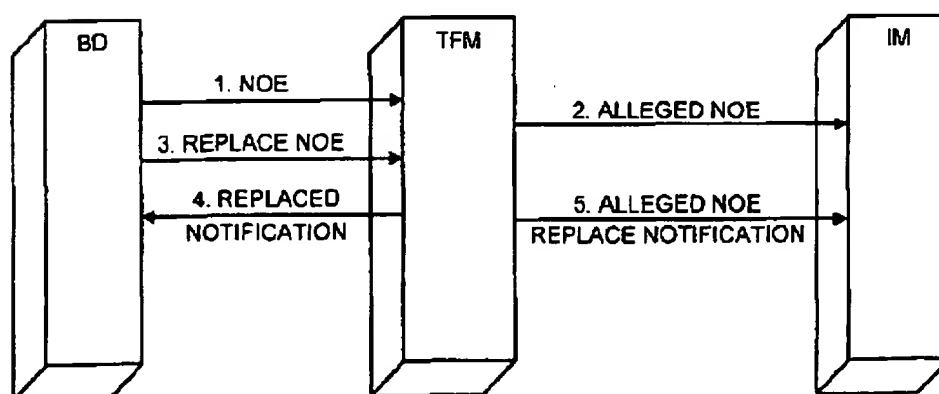
FIG. 47
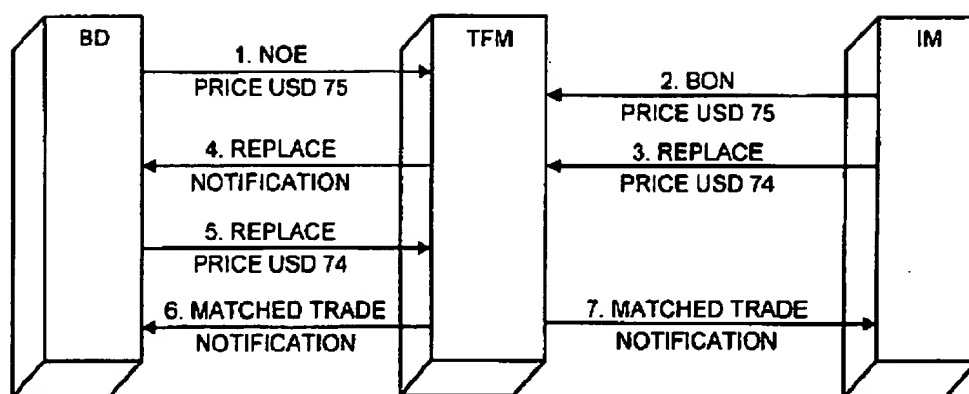
FIG. 48

Currency Code	Valid ISO Standard Currency Code
Currency Name	Name of the Currency
Smallest Denomination	Smallest Denomination. The smallest denomination will be used by the TFM as the tolerance value to validate the gross proceeds for each allocation.

FIG. 49

Country Code	Valid ISO Country Code
Country Name	
Currencies supported	Indicates the list of currency in use in the country.
Default Settlement Location	This will be maintained by instrument type.

FIG. 50

Instrument Type	ISITC standards for instrument types.
Country Code	ISO Country Codes.
Primary Numbering Agency Code	Valid Values are: ➢ ISIN ➢ US for CUSIP ➢ GB for SEDOL ➢ JP for QUIK.

FIG. 51

Settlement Location	Identification of the Settlement Location
Name	Institution Name
Currencies of Settlement	Settlement Currencies supported at the Location
Default Settlement Currency	The default Settlement Currency
Country	Country of Settlement Location
Settlement Calendar	Valid settlement dates at the Location
TFM Deadlines	Generic deadlines to be followed in the TFM for Net Proceeds match and Settlement match
Method of settlement supported	Types of transactions supported in the Settlement Location (i.e., Book entry, DVP/RVP, DFP/RFP, FOP)
Market Tolerance for Net Proceeds Match	Absolute value for the respective currency and instrument type
Instrument type	Categories of Securities supported (i.e., Equity, Fixed Income, etc.)

FIG. 52

Settlement Location Identification	Unique identification of the Settlement Location
Bridge Location	This identifies the Settlement Location which has a Bridge Link with the above Settlement Location
Currencies of Settlement	Currencies supported by the Bridge
Instrument Type	Categories of Securities supported (i.e., Equity, Fixed Income, etc.)
Method of Settlement Supported	Method of settlement supported at the bridge for the Settlement Location (i.e., Book entry - DVP/RVP, DFP/RFP, FOP).
Sub-custodian/Identification at the Bridge	Sub-custodian/Identification at the Bridge
Security Agent Identification	Security Agent at the Settlement Location
Security Account at the Location	Security account at the agent
Cash Agent Identification	Cash Agent at the Settlement Location for the Bridge
Cash Account at the Location	Cash account at the agent
Transaction Type Codes	Transaction code used at the Settlement Location to identify the Bridge

FIG. 53

Bank Code	[4 upper case alphabetic characters] The Bank Code is unique to each financial institution and identifies the institution world-wide
Country Code	[2 upper case alphabetic characters] The Country code identifies the country or geographical territory in which the user is physically located. The country code must reflect the geographical location of the business unit. The country code consists of the ISO two character country code (e.g., CH is Switzerland).
Location Code	[2 upper case alphanumeric characters] The Location Code identifies, within a country or geographical territory, the region and/or city in which the business unit is located. The location code consists of two components, a region code and a suffix code. The region code is a one digit alphanumeric character where the digits '0' and '1' are not permitted. The region code may be used to: • split a country into geographical parts • identify major commercial locations within a country or • represent a time zone in a country The suffix code is a one digit alphanumeric code where the digit '0' is specially reserved and the letter 'O' is not permitted. The following rules apply to the suffix code: • where required, it enables a subdivision within a region or city • the digit '1' indicates a Non-S.W.I.F.T. BIC • the digit '0' indicates a test and training destination
Branch Code	[3 upper case alphanumeric characters] The three-character code is an optional component for all BICs. It can be registered to identify: • a 100% owned branch of the requesting institution in the same country • a department/ functional role within the requesting institution 'XXX' is the default branch code for S.W.I.F.T. BICs

FIG. 54

Role	Possible Profiles
B/D	• Notice of pending Transactions (Pending NOE, NP, SD) • Routing • Matching Tolerance for block gross amount, net proceeds • Use of External Common reference number match for applying tolerance on gross amount match. • Match on brokerage commission profiles • Settlement Deadlines – Security and Cash (NP match, Settlement channel match) • Supported transaction types (i.e., Broker-to-Broker trades) • Substitution (NP, SD) • Supported settlement bridges
IM	• Notice of pending Transactions (Pending BON, NP) • Routing • Matching Tolerance for block gross amount, net proceeds • Use of External Common reference number match for applying tolerance on gross amount match • Match on brokerage commission Profile • Client Details (Accounting Agents) • Substitution (NP)
GC	• Routing • Settlement Deadlines – securities and cash (NP match, Settlement channel match) • Substitution (SD) • Supported Settlement Bridges
Substituting Party	• Will maintain profiles on behalf of the party for whom it is substituting. • The type of profiles maintained by the substituting party will depend on the type of substitution. For example: The substituting party for settlement details will maintain the profile of the GC for whom it is replacing like deadlines, etc.
Accounting Agent	• Deadlines for each class of accounts or account

FIG. 56

Participant Identification	Identification of the Participant in the 8- or 11-character BIC formats. The matching of the trade information will be at the level of 8 characters regardless of whether an 8- or 11-character BIC is used.
Name of the Financial Institution	Name of the Financial Institution that the BIC represents
Additional Name	Additional name, if any

Participant Address Details

FIG. 57

Participant Identification	BIC of the Participant
Address Type	Type of the address specified. Participants can have multiple addresses for different functional departments and contact details. The following information is maintained for each address type.
Place	Name of the place
Internal Address	Internal Address, if any
Street Address	Street Address
Post Box Number	Post Box Number
Postal Code	Postal Code
Country	Name of the Country
Default Address	Whether this is the default address or not. Specified as a Y/N flag
Contact Person or People	Name of the Contact Person or People
Telephone Number	Telephone Number of the contact person
Telex	Telex Number
Fax Number	Fax Number
Email Address	Email Address of the contact person

FIG. 58

Participant Roles

IM	IM
B/D	B/D
GC	GC
Interested Party	An entity, other than the primary participants, which might receive information from the TFM at various stages of the trade processing. An Interested party could be any of the following: • Accounting Agent • Lending Agent • Trustee, etc.
Substituting Party	An entity which submits trade information on behalf of a Participant; (e.g., Net proceeds for a B/D or an IM; Settlement Details for a GC or a B/D, etc.)
Reference Data Provider	Provides reference data such as BIC, Security Identification codes and Account numbers

PAM Identification	A 4-character PAM identification
Current Message Version	XML message version supported by the PAM
Concentrator PAM (Y, N)	Whether the PAM is a concentrator PAM or not
Owner of PAM	The BIC to which the PAM is connected
Swift DN Address	Distinguished Name Address – SWIFT network address for the PAM
PAM Version	Version of the PAM software
PAM Credit	Credit value for the PAM for inbound messages. This is a communication level field that indicates the number of messages the TFM can send to the PAM before receiving any acknowledgement from the PAM. This is a PAM set up parameter that ensures the PAM is not flooded with messages from the TFM.

FIG. 59

RELATIONSHIPS BETWEEN PARTICIPANT, ROLE, BIC, PAM, TFM AND CONCENTRATOR
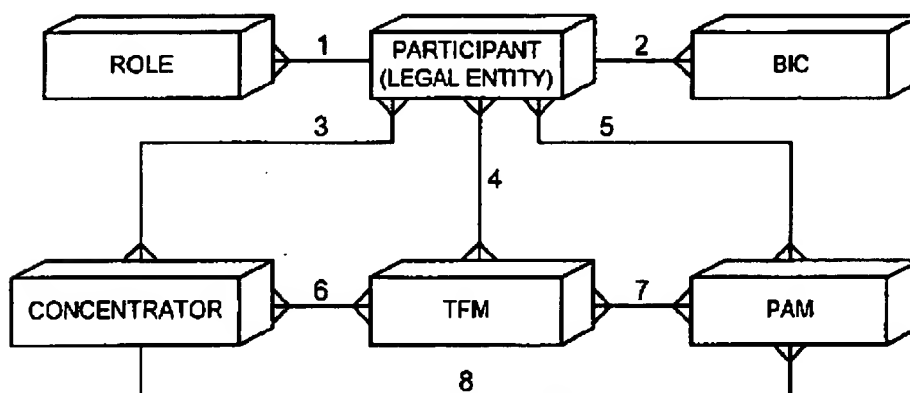
FIG. 60

FIG. 61

Transaction	Whether Required (Options)	When required (Options)
Alleged NOE	• Yes • No	• Immediately when a trade is alleged • Periodically (e.g., intervals of 30 minutes, 60 minutes and so on). The interval specified by the participant must be less than the TFM specified maximum interval.
Alleged BON	• Yes • No	• Immediately when a trade is alleged • Periodically (e.g., intervals of 30 minutes, 60 minutes and so on). The interval specified by the participant must be less than the TFM specified maximum interval.
Pending Net Proceeds	• Yes • No	• Immediately when the counterpart message is received
Pending Settlement Details to BD. This profile can be set up for each settlement location.	• Yes • No.	• Immediately when the settlement details from GC is received.

FIG. 62

Participant	Identification of the IM or the B/D who has specified a substitute for Net Proceeds.
Substitution type	Message for which the substitution ID is defined - in this case Net Proceeds.
Substitute Identification	Identification of the substitute expects to submit Net Proceeds.
Effective Date	Trade date from which the substitution is active.

FIG. 63

Participant	Identification of the GC or B/D who is substituted for Settlement Details.
Substitution Type	Message for which the substitution ID is defined – in this case, Settlement Details.
IM Identification	Identification of the IM, if the substitution is maintained only for a specific IM.
Substitute Identification	Identification of substitute who submits Settlement Details.
Effective Date	Trade date from when the substitution is active.

FIG. 64

IM	Identification of the IM.
Class of Account	Identifies the Class of Account (e.g., Mutual Fund registered in UK, etc.) for which the Accounting Agent is identified.
IM Client Account Number or GSTPA Client Account Number	Identifies the Client for which the profiles are set up. IMs can set up Accounting Agents for a class of account or for a specific account. If the IM specifies an Accounting Agent for a class of account, then at each allocation the IM can specify the class of account. TFM will identify the Accounting Agent to be used based on the profile and the Allocation details.
Accounting Agents	Identifies the Accounting Agents to whom the reporting is done.
Soft Reporting Indicator	Indicates whether soft reporting can be done to the Accounting Agent or not.
Indicator to use the B/Ds or IMs net proceeds details for soft reporting.	

FIG. 65

Accounting Agent	Identification of the Accounting Agent.
Class of Account	Identifies the Class of Account (e.g., Mutual Fund registered in UK, etc.)
IM	Identifies the IM for whose clients the deadlines are set up.
IM Client Account Number or GSTPA Client Account Number	Identifies the Client of the IM for which the deadlines are set up.
Reporting Basis	Indicates whether the reporting has to be done based on trade time or Allocation Time.
Reporting Method	Indicates whether the Reporting is based on duration or the number of hours elapsed after the trade time or the allocation time.
Reporting Type	Indicates the reporting type (e.g., once a day, twice a day, "n" times a day, once a week and once a month for duration-based reporting and the number of hours for elapsed-time reporting.
Reporting Deadline (Only applicable for duration based reporting)	Along with the deadline type, the TFM will also maintain the deadline time. The following is the way in which it will maintain the deadline Times: **Once a Day** At time of Day. **"N" times a day** At "N" times of the Day. **Once a week** At day and time of the week. **Once a month** At day and time of the month.
Reporting Period Duration	Duration will be from date (-N Days) and time and to Date and Time (-M Days) and Time. The TFM will convert the duration to the GMT equivalent based on the time zone of the Accounting Agent.

Exact Price Match Indicator	Indicates whether exact price match on the Block is required or not.
External Reference Match Indicator	Indicates whether the external reference match is required for tolerance match on block gross amount or not.
Settlement Currency	Identifies the Settlement Currency for which the block tolerance is set up.
Instrument Type	Identifies the Instrument Type for which the block tolerance is set up.
Tolerance Amount	Indicates the Tolerance Amount to be used for the block gross amount.

FIGS. 66

FIG. 67

	No. Of trades	% Of total No.	Amount	% of total amount
Submitted trades		-		-
Completed trades				
Cancelled trades by participant	Unmatched trade			
	After Trade Match			
	After NP Match			
	After SD Match			
Cancelled trades by TFM				

Message Statistics Table

FIG. 68

Messages	Total number	New	Replace	Delete/Cancel*
NOE				
BON				
Allocations				
NP				
SD				

* - Cancel is applicable for NOE and BON and that leads to trade cancel

Matching Efficiency Table

FIG. 69

Events	Total		Missing deadlines				By Duration Like <1 Hour, 1 and 2 hours, etc.,			
	Value	No.	Value	%	No.	%	Value	%	No.	%
Block Trade Reporting										
Block Trade Match										
Allocations Completion										
NP Match										
SD Match										

Geographical characteristics of Usage

FIG. 70

Geography	No. of Trades	% of Total	Value of Trades	% of Total Value
US market				
Europe Market, Africa and Middle East				
Asia Pacific				

Instrument Types of Usage Table

FIG. 71

Instrument Type	No. of Trades	% of Total	Value of Trades	% of Total Value
Equities				
Fixed Income				

Domestic or Cross-border Usage of Services Table

FIG. 72

Type of Service	No. of Trades	% of Total	Value of Trades	% of Total Value
Domestic*				
Cross-border				

* - A domestic trade is the one where all the participants to the trade are from the same country where the security is issued.

Standards Compliance Table

FIG. 73

Statistics on completed trades with respect to securities identification code usage are provided.

Type of Securities Identification Code	No. of Trades	% of Total
ISIN		
SEDOL		
CUSIP		
QUIK		
Others		

Reference Number Table

Message	Mandatory Reference Numbers
NOE	Trade Reference 1, Version 1
BON	Trade Reference 2, Version 1
Allocations: Assuming that there are 3 allocations for the trade	Trade Reference 2, Version 1 Allocation Sequence 1, Version 1 Allocation Sequence 2, Version 1 Allocation Sequence 3, Version 1
Net Proceeds: From IM	Trade Reference 2, Version 1 Allocation Sequence 1, Version 1, Net Proceeds Version 1 Allocation Sequence 2, Version 1, Net Proceeds Version 1 Allocation Sequence 3, Version 1, Net Proceeds Version 1
Net Proceeds: From B/D	Trade Reference 1, Version 1 Allocation Sequence 1, Version 1, Net Proceeds Version 1 Allocation Sequence 2, Version 1, Net Proceeds Version 1 Allocation Sequence 3, Version 1, Net Proceeds Version 1
Settlement Details: From GC	Trade Reference 2, Version 1 Allocation Sequence 1, Version 1, Net Proceeds Version 1 (optional), Settlement Details Version 1 Allocation Sequence 2, Version 1, Net Proceeds Version 1 (optional), Settlement Details Version 1 Allocation Sequence 3, Version 1, Net Proceeds Version 1 (optional), Settlement Details Version 1
Settlement Details: From B/D	Trade Reference 1, Version 1 Allocation Sequence 1, Version 1, Net Proceeds Version 1 (optional), Settlement Details Version 1 Allocation Sequence 2, Version 1, Net Proceeds Version 1 (optional), Settlement Details Version 1 Allocation Sequence 3, Version 1, Net Proceeds Version 1 (optional), Settlement Details Version 1
Settlement Release Instruction: from GC	Trade Reference 2, Version 1 Allocation Sequence 1, Version 1, Net Proceeds Version 1, Settlement Details Version 1, Settlement Release Version 1 Allocation Sequence 2, Version 1, Net Proceeds Version 1, Settlement Details Version 1, Settlement Release Version 1 Allocation Sequence 3, Version 1, Net Proceeds Version 1, Settlement Details Version 1, Settlement Release Version 1

FIG. 74

Messages States In TFM Table

Message Status	Description
Active	Message is valid for format and business reference data verification and is the current active message for the trade.
In Error	Message has failed validation
Inactive	Message was either replaced or deleted by another message
Pending Processing	Message is waiting for the arrival of another message (e.g., Net Proceeds waiting for Allocations)
Overridden	A lower version of the message arrives after the TFM has accepted a higher version.

FIG. 75

Function of the message	Description
NEWM	New Message
REPC	Replace Message
CANC	Cancel Message; On NOE or BON, it amounts to Cancel Trade; On all other messages, it amounts to Delete
REJM	Reject of Unmatched NOE or BON alleged against a participant
REVC	Revoke either Cancel of Trade which is pending approval or a reject of an unmatched NOE or BON
DSPT	Disputes an Alleged NOE or BON by indicating a reference ≠ to a BON or NOE that should match against the Alleged trade.

Output Messages from the TFM

FIG. 76

Message Types	Profile Driven (y/n)

Error and Warning Messages
    Acceptance Error and Warning
    Match Error and Warning
	N

Acceptance Message
    NOE/BON, Allocations, Net
    Proceeds, Settlement Details
	Y

Pending Processing Message Allocations, Net Proceeds and Settlement Details	Y
Discard Pending Processing Messages Allocations, Net Proceeds and Settlement Details	Y

Notice Of Pending Transaction Message
    Block Trade
    Net Proceeds
	Y

Match Notification
    Match Reference Notification
    Net Proceeds
    Settlement Details
	N

Notification
    Allocation Details to GC before
    trade match
	Y

Allocation Details to GC after trade match	N
Accounting Information	N
Settlement Instructions to GC, B/D	N
Allocation Details notification to B/D	N

Status Intimations
    Cancel/Delete/Replace Requested
    Cancelled/Deleted/Replaced
    Fully Allocated Trade
	N
	N
	Y

FIG. 77

The composite Block Trade State is a combination of the Block Trade State and Block Trade Allocation Sub-state. The composite Allocation State is a combination of the Allocation State and NP state and SD state.

States	Description
Block Trade States	
Unmatched Trade	An accepted NOE or BON is existing and there is no matching trade details (NOE or BON) from the counterparty in the TFM.
Matched Trade	Trade details from the IM and the B/D have matched and a match reference number is assigned by the TFM.
Paired Trade	A replace on a matched trade does not match with the counterparty's trade details. Indicates that a previously matched trade is now being replaced and should not be matched with a different trade.
Matched Trade, Cancellation Requested	In Matched Trade status, the cancellation submitted by one party needs to be approved by the counterparty.
Paired Trade, Cancellation Requested	In Paired Trade status, the cancellation submitted by one party needs to be approved by the counterparty.
Cancelled Trade	The trade is cancelled and no further processing can be done on the trade.
Rejected Trade	Indicates that the alleged trade has been rejected by the counterparty. The party alleging the trade has the option of replacing the trade or cancelling it.
Block Trade – Allocation Sub-States	
Unallocated	No allocations have been received for the trade.
Partially allocated	Some allocations have been received for the trade. However, there is still some unallocated quantity remaining for the trade.
Fully Allocated	All allocations have been completed for the trade and there is no unallocated quantity remaining for the trade.
All NP matched	All allocations have been completed for the trade and the Net Proceeds for all the allocations have matched.
All SD matched	All allocations have been completed for the trade and the Settlement details for all the allocations have matched.
Completed trade	All allocations have been completed for the trade and the Net Proceeds and Settlement details for all the allocations have matched.
Allocation States	
Allocation Accepted	An allocation has been accepted into the TFM for the trade.
Allocation Incomplete	An incomplete allocation has been received from the Broker/Dealer for a pre-allocated trade and an enrichment of the allocation is expected from the IM to complete the allocation.
Allocation Deleted	An allocation has been deleted (soft) from the trade.
Allocation – Net Proceeds Sub-States	
IM: Unmatched NP	Net proceeds have been accepted for the allocation from the IM and the B/D has not submitted the Net proceeds for the allocation.
BD: Unmatched NP	Net proceeds have been accepted for the allocation from the B/D and the IM has not submitted the Net proceeds for the allocation.
Matched Net Proceeds	Net Proceeds accepted from the IM and the B/D for the

FIG. 78

States	Description
	allocation have matched exactly or within tolerances.
Net Proceeds Match Fail	Net Proceeds accepted from the IM and the B/D for the allocation have not matched within tolerances.
Paired Net Proceeds	A replace on a matched Net Proceeds for the allocation does not match with the counterparty's Net Proceeds details. Indicates that a previously matched Net Proceeds or the matched trade or allocation has now being replaced.
Allocation – Settlement Details Sub-States	
BD: Unmatched SD	Settlement details have accepted for the allocation from the B/D and the GC has not submitted the Settlement details for the allocation.
GC: Unmatched SD	Settlement details have accepted for the allocation from the GC and the B/D has not submitted the Settlement details for the allocation.
Settlement Channel Compatible	Settlement details accepted from the GC and the B/D for the allocation have matched.
Settlement Channel Incompatible	Settlement details accepted from the GC and the B/D for the allocation have not matched.
Paired SD	A replace on a matched Settlement details for the allocation does not match with the counterparty's Settlement details. Indicates that a previously matched Settlement details or the matched trade or allocation has now being replaced.

FIG 78A

		Replace	
Acceptance Error for BON Replace	Error	Replace	In Error
Acceptance Error for BON Cancel	Error	Cancel	In Error
Acceptance Error for BON Revoke Cancel	Error	Revoke	In Error
Acceptance Error for NOE DK	Error	Reject	In Error
Acceptance Error for NOE Dispute	Error	Dispute	In Error
Acceptance Error for NOE Revoke DK	Error	Revoke	In Error
Notification of Trade Match	Trade Match	Function of the message that initiated the match	Trade Match
Notification for Trade Pair	Trade Pair	Function of the message that initiated the trade to pair	Trade Pair
Notification for Cancel Request for Approval	Status Changes	Cancel	Cancellation Requested
Notification for Revoke Cancel	Status Changes	Revoke	Matched or Paired
Notification for Trade Cancellation	Status Changes	Cancel	Cancelled
Notification for DK NOE	Status Changes	Reject	Rejected
Notification for Dispute NOE	Status Changes	Dispute	Unmatched
Notification for DK NOE Revoke	Status Changes	Revoke	Unmatched
Notification for DK BON	Status Changes	Reject	Rejected
Notification for Dispute BON	Status Changes	Dispute	Unmatched
Notification for DK BON Revoke	Status Changes	Revoke	Unmatched
Notification for Time Expiry	Alert		Current status of the trade
Notification for Alleged NOE	Alleged NOE	New	Unmatched
Notification for replacement of Alleged NOE	Alleged NOE	Replace	Unmatched
Notification for Alleged NOE Cancel	Alleged NOE	Cancel	Cancelled
Notification for Alleged BON	Alleged BON	New	
Notification for replacement of Alleged BON	Alleged BON	Replace	
Notification for Alleged BON Cancel	Alleged BON	Cancel	
Notification for partially Allocated Trade	Status Changes		Partially Allocated
Notification for Fully Allocated Trade	Status Changes		Fully Allocated
Notification for All Net Proceeds Match	Status Changes		All NP Matched
Notification for All Settlement Details Match	Status Changes		All SO Matched
Notification for Fully Completed Trade	Status Changes		Fully Completed

Allocations

FIG. 78B

Field Elements

#		Sender Details	
1.	Physical Sender Identification or Physical Recipient Identification	Identifies the physical sender or the Recipient of the message. Normally the physical sender or recipient of the message will be the same as the actual sender or recipient of the message. In case of participants using a concentrator, the party sending or receiving the message will be the concentrator. The actual sender or the recipient of the message will be the participant who is submitting or receiving the message through the concentrator.	Sender must be a valid and active participant in the TFM. This field will be sent as part of the message header information. In case of output messages, the TFM will be the Physical Sender Identification of the message.
2.	Actual Sender / Recipient Identification	Identifies the actual sender or the recipient of the message. This field will be specified in case the physical sender or the recipient of the message is different from the actual sender or recipient of the message. Otherwise, the actual sender or recipient will be assumed to be the same as the physical sender or the physical recipient of the message.	This field must be specified in case physical sender or recipient is different from the actual sender or recipient of the message.
		Reference and Trade Identification Details	
3.	Physical Sender Identification of the Trade	Indicates if the participants wants to distinguish their trades sent through multiple physical senders (concentrators) separately or not. Participants that do not want to distinguish their trades sent through multiple concentrators must not specify this field.	In case of New Block Trade, then Physical Sender Identification of the trade, must be same as the physical sender identification of the Block Trade in case it is specified.
4.	Actual Sender Identification of the Trade	Identifies the actual sender of trade. In case of a substituting party providing the details, the actual sender identification of the trade will be the Investment Manager or the Broker/Dealer. Otherwise this will be the same as the actual sender identification of the message.	
5.	Participant Trade Reference #	Unique identification for every block trade sent by the participant. Participants use the trade reference number to identify their trades uniquely in the TFM. All	Since, the TFM will also generate trades on behalf of participants due to step-out trades, all trade reference # starting with "T" will be used by the

FIG. 79A

No.			
		subsequent messages to the trade must have the participant trade reference #. The trade reference # will be unique for the combination of the actual sender and the physical sender in the TFM.	TFM. The TFM will ensure that the participant trade reference # is unique for every participant. Recycling of the participant trade reference # will depend on the housekeeping period (90 Days) in the TFM. So participants must take care to ensure that the recycling of the participant trade reference # does not create duplicates in the TFM. Participant trade reference # must exist as a valid trade in the TFM in case the function of the message is not New. Participants when either rejecting or disputing a trade should refer to the counter party trade (i.e. Actual sender identification of the counter party's trade, physical sender identification of the counter party's trade and the participant trade reference # of the counter party's trade)
6.	Senders Message Reference #	Unique identification of the messages sent by the participant or the TFM.	
7.	Related Reference #	Related reference # will relate to a message reference # that resulted in generation of the message. In all the output messages the TFM will send the participant's message reference that triggered the output as the related reference #	
8.	Preparation Date and Time	Indicates the date and time at which the message was prepared.	
9.	Version of Trade	Specifies the version of the Block Trade.	New block trades must have version number as 1. All replacements and cancellation must have a version number later than the current version of the trade.
10.	External (common) Reference #	Reference number that has been externally established and agreed upon by the Investment Manager and the Broker/Dealer (e.g., FIX).	
11.	TFM Match Reference #	The TFM will generate a unique match reference # once the block trade is matched in the TFM.	
12.	Basket/Program/Portf	Reference number identifies all the block trades	This field can be specified in case the transaction)

FIG. 79B

#	Field	Description	Values / Notes
	olio Reference #	associated with the basket/program/portfolio trade.	type is Basket/program/portfolio trade. The Broker/Dealer will normally specify this field.
13.	Fund to Fund Trade Link #	Links the two sides of the fund to fund trade.	This field can be specified in case the processing type is Fund-to-fund trade.
14.	Function of Message	Indicates whether the block trade is a new block trade or a replacement to an existing block trade or a cancellation of an existing block trade.	Valid Values are: ➤ New ➤ Replace ➤ Cancel ➤ Reject ➤ Revoke Cancel ➤ Revoke Reject ➤ Dispute.
15.	Trade Transaction Type	Indicates the transaction type used by the sender and will determine the transaction processing variation.	Valid Values are: ➤ Institutional trade ➤ Basket trade ➤ Program trade. Default value is Institutional trade.
16.	Processing Type	Indicates the processing type used by the sender and will determine the processing variation.	Valid Values are: ➤ Institutional trade ➤ Broker to Broker trade ➤ Fund-to-Fund trade ➤ Pre-Allocated Trade. In case of a Pre-Allocated Trade, the Broker/Dealer will be expected to submit the Allocations for the Block Trade. Default value is Institutional trade.
	Party Details		
17.	Buy/Sell Indicator	Indicates whether the actual sender is acting as a buyer or seller.	Valid values are: ➤ Buy ➤ Sell. The Buy/Sell Indicator and the Actual Sender of the message must have a relation with the Buyer Identification and the Seller Identification. For example, the trade is indicated as "Buy" trade, then the Actual Sender of the Message should be the same as the first 8 characters of the BIC of the

FIG. 79C

18.	Buyer Identification	Identifies the Buyer of the trade.	**Buyer and vice versa.** The buyer must be defined as a valid participant in the TFM. The buyer must have role as "Investment Manager" or "Broker/Dealer" in the TFM. The role of the buyer must be compatible with the transaction type used. For example, in transaction type "BTB" both the buyer and the seller must have a role as Broker/Dealer.
19.	Seller Identification	Identifies the Seller of the trade.	The Seller must be defined as a valid participant in the TFM. The seller must have role as "Investment Manager" or "Broker/Dealer" in the TFM. The role of the seller must be compatible with the transaction type used. For example, in transaction type "BTB" both buyer and seller must have a role as broker.
		Security Identification Details	
20.	Type of financial Instrument	The financial instrument classification code.	In GSTPA, ISITC standard code will be used for this field.

21.	Numbering Agency Code	The numbering agency code used for the security identification.	Valid Values as per ISO standard. Indicative values that will be supported by the GSTPA are:
			➤ ISIN
			   ➤ US for CUSIP
			   ➤ GB for SEDOL
			   ➤ JP for QUIK
			   ➤ MUTUAL for mutually agreed upon security identification code between the Investment Manager and the Broker/Dealer. The mutually agreed identification should be used only if either no identification is established for the security or local market codes are used where no ISIN is issued.

22.	Security Identification Number	Identifies the security within the numbering agency code used.	If ISIN is used, then security identification must be defined as a valid and active financial instrument in the TFM. Since ISIN is not listing specific like SEDOL, participants can use the combination of

FIG. 79D

No.	Field	Description	Valid Values
23.	Country of Issue of the Security	Identifies the country of issue for the security.	ISIN and other fields like settlement location, place of trade to uniquely identify the security or for internal translation to other numbering agency codes like SEDOL.
24.	Securities Short Name	This field is applicable where non-ISINs are used, especially for fixed income instruments with local market identifier. GSTPA will issue guidelines for using the securities short name like 144/144a.	This must be specified, if ISIN is not used as the identifier for the security. This must be specified, if ISIN is not used as the identifier for the security.
25.	Dated Date	Specifies the date from which interest will accrue.	
26.	Floating Rate Note Reset Date	Specifies the date on which the rate on Floating Rate Note will be reset.	
27.	Conversion Date	Specifies the conversion date for convertible bonds.	
28.	Yield to Maturity	Specifies the yield at maturity including interest, etc.	
29.	Number of Days Accrued	Specifies the numbers of days for which interest has accrued	
30.	Method of Interest Computation	Indicates how the interest is to be computed for the security.	Valid Values are: ➤ 30/360 Basis ➤ 30/365 Basis ➤ 30/Actual Basis ➤ Actual/30 Basis ➤ Actual/360 Basis ➤ Actual/365 Basis ➤ Actual/Actual Basis ➤ Eurobond Basis.
31.	Odd Coupon Flag		Valid Values are: ➤ Yes ➤ No.
32.	Alternate Minimum Tax Flag		Valid Values are: ➤ Yes ➤ No.
33.	Convertible Flag	Specifies if the security can be converted to another class of security.	Valid Values are: ➤ Yes ➤ No.

FIG. 79B

#			Valid Values are:
34.	Variable Rate Flag	Specifies if the interest rate for the security is variable or not.	Yes No.
35.	Special Coupon Indicator	Indicates the coupon types like Zero Interest, Original Issue Discount, Adjustable Rate, etc.,	Zero Original Issue Discount Adjustable Rate.
36.	Coupon Payment Frequency Indicator	Indicates the payment frequency for the security like weekly, monthly, quarterly, half yearly, etc.,	Daily Weekly Fortnightly Monthly Bimonthly Quarterly Semi-annually Annually Biannually.
37.	Variable Rate Change Frequency	Indicates the frequency of the change of interest rate for variable rate securities	Daily Weekly Fortnightly Monthly Bimonthly Quarterly Semi-annually Annually Biannually.
38.	Form of Securities	Indicates whether the security is a registered or a bearer security.	Registered Bearer.
39.	Security Payment Status	Indicates whether the security is fully paid or not.	Fully Paid Partly Paid Not Paid.
40.	Preference to Income	Indicates whether the security has any preference to	Valid Values are:

FIG. 79F

		Income on assets	> Ordinary/Common > Preferred – Security has a preferred claim on income and assets.
41.	Restrictions	Indicates whether the security has any restrictions on transfer	Valid Values are: > Restrictions due to 144A > Restrictions other than 144A > No Restrictions.
42.	Reset Source	Indicates the re-marketing agent for the security	
43.	Rating Agency	Indicates the rating agency giving the rating for the security	
44.	Security Rating	Indicates rating given by the rating agency for the security like "AAA", "BBB", etc.,.	Indicative Valid Values are: > Moody's > S&P > Others.
45.	Flat Default Status		
46.	Contract Multiplier	Indicates the factor to convert contract units to shares or nominal	
47.	Pool Identifier	Indicates the number assigned by the issuer of asset backed securities to identify the mortgages	
48.	State of Pool Issuance		
	Additional Information for Fixed Income Instruments		
49.	Security Identification In Local Market	Specifies the security identification used in the local market, which may or may not have ISIN numbers.	All these fields are used for fixed income instruments.
50.	Currency of Issue	Specifies the currency in which the instrument is issued.	ISO currency codes. This field must be specified for fixed income instruments.
51.	Original Par (Face) Value	Specifies the Original face value of the instrument. This is applicable only in respect to Mortgage Backed Securities (MBS) and Asset Backed Securities (ABS)	This field must be specified for asset backed and mortgage backed securities.
52.	Current Factor	Specifies the applicable current factor at the time of the trade for the instrument. This is applicable only in respect to Mortgage Backed Securities (MBS) and Asset Backed Securities (ABS)	This field must be specified for asset backed and mortgage backed securities.
53.	Next Factor	Specifies the applicable factor to be used at the time of settlement. This is applicable only in respect to	This field must be specified for asset backed and mortgage backed securities.

FIG. 79G

#	Field	Description	Notes
		Mortgage Backed (MBS) and Asset backed securities (ABS).	
54.	Date of Next Factor	Specifies the date on which the applicable next factor is applied. This is applicable only in respect to Mortgage Backed Securities (MBS) and Asset Backed Securities (ABS)	This field must be specified for asset backed and mortgage backed securities.
55.	Issue Date	Specifies the issue date of the Instrument.	
56.	Maturity Date	Specifies the maturity date of the instrument.	This field must be specified for fixed Income Instruments.
57.	Current Interest Rate	Specifies the interest rate applicable on the Instrument.	This field must be specified for fixed Income Instruments.
58.	Next Interest Rate	Specifies the next interest rate applicable on the Instrument.	This field must be specified for fixed Income Instruments.
59.	Index	Index like LIBOR, to be used for the Interest Rate Instrument.	
60.	Coupon Frequency	Specifies the frequency of the coupon payment.	This field must be specified for fixed Income Instruments.
61.	First Coupon Date	Specifies first coupon date.	This field must be specified for fixed Income Instruments. This field must be specified for fixed Income Instruments.
62.	Next Coupon Date	Specifies next coupon date.	This field must be specified for fixed Income Instruments.
		Trade Details	
63.	Block Quantity Traded (Executed)	The block quantity can be represented as units or nominal value depending on the type of Instrument.	
64.	Original Block Quantity	Indicates the block quantity that the parties agreed to trade. This will be different from the Block Quantity Traded In case the Block was truncated at the end of the day.	
65.	Trade Currency	The currency in which the average price is quoted or the currency in which the face value is expressed.	ISO Currency codes.
66.	Price	The average price for the entire block. The price must normally be represented exclusive of commissions and other charges. Based on further investigations and experiences of other ETC providers and the GSTPA pilot	

FIG. 79H

		production phase, the GSTPA will issue standards for the number of decimal places and the rounding algorithms to be used by participants to enable maximise the number of matches. Price must be quoted as price per unit or a percentage or a yield.	
67.	Type of Price	Indicates whether the price is a par value price or a nominal value price.	Valid Values are: ➤ Par Value ➤ Nominal Value.
68.	Price Precision	Indicates the precision (number of decimal places) used to calculate the price.	
69.	Block Gross Amount in Trade Currency	Indicates the Block Gross Amount in the Trade Currency	
70.	Broker Commission in Trade Currency (Currency + Value)	The commission charged by the Broker/Dealer.	The Broker Commission must be specified in the trade currency.
71.	Forex Rate	Indicates the FOREX rate between the trade currency and the settlement currency.	This field must be specified in case the Broker/Dealer has carried out a facilitated forex on behalf of the Investment Manager. This field must be specified in case any Forex rate is specified.
72.	Block Gross Amount in Settlement Currency (Currency + Value)	The gross amount for the entire block expressed in the settlement currency.	
73.	Broker Commission in Settlement Currency (Currency + Value)	The commission charged by the Broker/Dealer. Since majority of the net amount failure happens at the level of commissions this field is specified in the block trade so that any mismatches can be corrected early on in the trade life cycle.	Broker Commission must be specified in the settlement currency in case any Forex rate is specified.
74.	Trade Date	The date of the reporting by the Broker/Dealer who has executed trade.	This field must be either the current processing date or a date within 30 days prior to the current processing date in the TFM. If the date is more than 30 days, (but not later than xxx days) a warning will be issued.
75.	Trade Time	The time of reporting by the executing Broker/Dealer.	If the trade date is the same as current processing

FIG. 791

#		Description	
		In case of partial fills for the block trade, the final fill execution time must be reported as the trade time.	date, then the GMT equivalent of the trade time must be less than or the same as the current GMT time. In case the trade time is not specified, all deadline processing based on trade time will be using the trade receipt time is the TFM.
76.	Time Zone of the Trade Time	Indicates the time zone with respect to GMT for the trade time.	Time zone must be between -12:00 and 12:00 hours from GMT.
77.	Place of Trade	Indicates the exchange or the type of trading like OTC, etc. in which the trade has been executed.	As per the SWIFT Handbook.
78.	Trading Session ID	Identifies the specific market trading session used in FIX	
79.	Settlement Date	The date on which the settlement is expected to happen for all the Allocations of the block trade.	The settlement date must be the same as or later than the trade date. If the settlement location is given, the settlement date must be a working date for the location in which the settlement is expected to happen. (Only a warning is issued if the settlement date is not a working date for the settlement location).
80.	Method of Settlement	Indicates whether the settlement will be FOP or DVP or DSP (Delivery Separate from Payment) basis.	The method of settlement is agreed between the Investment Manager and the Broker/Dealer. This field will be matched exactly.
81.	Settlement Location	Indicates the location of Broker/Dealer's settlement agent at which the settlement is expected to happen. Indicates the settlement location that was explicitly or implicitly part of the trade agreement. This field is applicable to NOE only. In most of the cases, the Global Custodian will respond with the same location as that of the Broker/Dealer in the settlement details. However in some cases, the Global Custodian could respond with a different location. In such a case, the settlement details match process will try to find that there is a bridge link between the locations. If there is no bridge link available, the Broker/Dealer and the Global Custodian will have to resolve the differences.	This field must be the BIC of an ICSD or the ISO country code of the market in which settlement is expected to happen.
82.	Capacity Indicator	Indicates whether the Broker/Dealer is acting in its	Valid Values are:

FIG. 79J

#	Field	Description	Valid Values
		capacity as agent or principal. Applicable to NOE only.	> Agency > Principal > Crossing as principal > Crossing as agent > Acting as agent for person other than customer > Acting as agent for both customer and another person > Acting as agent for some executions and principal for others in the transaction > Risk less principal.
83.	Short Sale Indicator	Indicates if the trade is short sale or not. Applicable to NOE only.	Valid Values are: > Short sale > Not a short sale > Buy to cover > Undisclosed. Default Value is "Undisclosed".
84.	Clean/Dirty Indicator	Indicates if the price includes or excludes commissions.	Valid values are: > Clean > Dirty. Default value is "Clean".
85.	Due to Bill Broker Indicator		Valid values are: > Due to Bill Broker
86.	Cum Bonus Indicator	Indicates whether the trade has been executed Cum or Ex bonus.	Valid Values are: > Cum Bonus > Ex Bonus
87.	Cum Coupon Indicator	Indicates whether the coupons are attached or not.	Valid Values are: > Attached > Not Attached
88.	Cum Dividend Indicator	Indicates whether the trade has been executed Cum or Ex dividend.	Valid Values are: > Cum Dividend > Ex Dividend

FIG. 79K

			Valid Values are:
89.	Special Cum Dividend Indicator	Indicates whether a sell trade before ex date is without coupon and buy trade after the ex date with the coupon.	Valid Values are: ➢ Sell before ex date without coupon ➢ Buy after ex date with the coupon.
90.	Cum Rights Indicator	Indicates whether the trade has been executed Cum or Ex rights.	Valid Values are: ➢ Cum rights ➢ Ex rights
91.	Cum Warrants Indicator	Indicates whether the trade has been executed Cum or Ex warrants.	Valid Values are: ➢ Cum warrants ➢ Ex warrants
92.	Warrants Attached Indicator	Indicates whether the securities has warrants attached or not.	Valid Values are: ➢ Warrants attached ➢ Warrants not attached.
93.	Solicited Flag	Indicates whether the trade is a solicited or an unsolicited trade by the Broker/Dealer.	Valid Values are: ➢ Solicited ➢ Unsolicited.
94.	Primary Market Indicator	Indicates if the trade is a primary market trade or not	Valid Values are: ➢ Primary market trade ➢ Not a primary market trade. Default value is "Not a primary market trade".
	Cancelled Trade Identification		
95.	Physical Sender Identification of the Cancelled Trade		
96.	Participant Trade Reference # of the Cancelled Trade	Links to a cancelled trade for MIS purposes. Participants can specify in their new block trades a link to an existing cancelled trade for tracking and MIS purposes. The TFM will include the cancelled trade identification in all outgoing messages so that participants will be able to link previously cancelled trades and allocations.	Must exist as a valid cancelled trade for the participant.
	Disputed Trade Identification		
97.	Physical Sender		

FIG. 79L

	Identification of the Disputed Trade		
98.	Participant Trade Reference # of the Disputed Trade	Participants can specify in their dispute block trades a link to an existing unmatched trade for informing the counter party about the differences.	Must exist as a valid unmatched trade for the participant. Must be specified in case the function of the message is dispute.
99.	Sender to Receiver Free Flow Information	Participants can use this field to send any registration-related details and other details.	
	Additional particulars not part of the message.		These fields will be added by the system for processing step out trade
100.	Step Out Indicator	Indicates whether the trade is due to a stepped out Allocation.	Valid Values are: ➤ Yes ➤ No Default Values is No.
101.	Step Out Trade Reference #	Identifies the trade whose Allocation is indicated as step out	
102.	Step Out Trade Allocation Sequence #	Specifically identifies the Allocations within the trade that are stepped out	
103.	Quantity allocated in this message	Sum of all the allocated quantities in the message.	This must be equal to the total of the Allocations for all Allocation sequence numbers in this message. This should be equal to, or less than, the unallocated trade quantity at the time this message is accepted.
	Allocation details (repeated for each Allocation Sequence Number)		
104.	Allocation Sequence #	The sequence number for the Allocation created by the Investment Manager (Broker/Dealer in case of pre-allocated trades) to uniquely identify each Allocation within a Block Trade.	This should be a unique sequence number for each Allocation detail within the Block Trade. Once the trade is fully allocated the TFM will issue a warning, if there are any missing Allocation Sequence numbers.
105.	Deleted Allocation Sequence #	This indicates that the Allocation Sequence # is linked to the Allocation Sequence # that was deleted by the participant	This should exist as a valid Allocation Sequence # for the Block Trade in deleted state.

FIG. 79M

#	Field	Description	Comments
106.	Version of the Allocation	Indicates the current version of the Allocation sequence number submitted by the participant.	New Allocations must have version number as 1. All replacements and deletions must have a version number later than the current version of the Allocation.
107.	Step in Broker	The Broker/Dealer who is responsible for the settlement for this Allocation.	This field must be specified, if step out indicator is set to Yes.
108.	Allocated Quantity	Allocated quantity for this Allocation.	This must be equal to, or less than, the quantity allocated in this message.
109.	Identification of the Client	Indicates the identification of the Client.	
110.	Investment Manager Client Account #	Account number of the Investment Manager's underlying client.	This field must be specified in case the GSTPA Account Number is not specified.
111.	Database of the Access Code	This identifies the vendor's database in which the Investment Manager's Client Details are maintained	This field must be specified in case the GSTPA Account Number is not specified.
112.	Access Code	The access code relating to the vendor's system where the account is registered.	This should be provided if the Investment Manager has registered its accounts with SID, Alert, or another cross-reference service. Valid values are: ➤ SID ➤ ALERT.
113.	GSTPA Account #	The unique GSTPA account number for the portfolio, which must be used if available.	This field is for future use. In case this field is specified other account number fields need not be specified, as this field will be used by the Investment Manager, Broker/Dealer and Global Custodian to cross-reference to their internal account number.
114.	Currency to Buy or Currency to Sell	Indicates whether the Investment Manager is instructing the Global Custodian to buy or sell in the allocated client's base currency.	This should be Currency to buy in case the Investment Manager's is selling and currency to sell in case the Investment Manager's buying.

FIG. 79N

No.		
115.	Global Custodian Identification	The Global Custodian for the allocated client. The Global Custodian must be a valid and active participant in the system acting as a Global Custodian or there should be a valid substituting party for the Global Custodian.
116.	Global Custodian Client Account #	The clients account number of the allocated client at the Global Custodian. This must be specified in case the GSTPA account number is not specified.
117.	Commission Type	The commission type arrangement between the Investment Manager/Client and the Broker/Dealer. Valid values are: ➢ Hard ➢ Soft and ➢ Directed. Default value is "Hard."
118.	Broker of Credit	Required and used to channel directed broker commissions. This field must be specified only in case the commission type is "Directed."
119.	Class of Account	This indicates the class of account like "Mutual Fund registered in the United States of America" to which the IM Client Account Number belongs. The class account is used by the TFM to identify the accounting agent to be used for reporting. Standards Committee will decide valid values.
120.	Accounting Agent/Interested Party	Indicates the Accounting Agent to whom Accounting details of the Allocation have to be reported. This Accounting Agent must be a valid and active participant in the system acting as an Accounting Agent.
121.	Deadline for Accounting to Accounting Agent/Interested Party	Indicates the number of hours after the reporting of the allocation that the TFM send the accounting details to the accounting agent. This field can be specified, only if the Accounting Agent is specified.
122.	Tax Lot Specification	Identifies a lot for tax purposes.

Net Proceeds Details

The Gross Proceeds, the Net Proceeds and all the components used to arrive at the Net Proceeds from the Gross Proceeds can be specified in the trade currency and the settlement currency after supplying the necessary exchange rate. The TFM will use the amounts specified in the settlement currency for the verification of mathematical accuracy.

| 123. | Net Proceeds Version | The current message version of the net proceeds. | In case of new net proceeds submitted by the |

FIG. 79O

No.			
	#		participant, it must be 1. In case of a deletions and replacements, the version number must be greater than a current active version of the Net Proceeds.
124.	Value Date and Time	Indicates the date on which the cash is supposed to settle when it is different from the securities.	
125.	Forex Rate	Indicates the exchange rate between the trade and settlement currency.	
126.	Gross Proceeds for the Allocation	Contains price times allocated quantity for the allocation.	
127.	Broker Commission	The commission charged by the Broker/Dealer at an allocated level.	
128.	Accrued Interest	Accrued Interest in case of fixed income securities	
129.	Country/National/Federation Tax		This field is used only for fixed income securities only.
130.	Stamp Duty		
131.	Registration Charge		
132.	Other Charges		
133.	Charges and Fees		
134.	Local Broker's Commission		
135.	Issue Discount Allowance		
136.	Payment Levy Tax		
137.	Matching/Confirmation Fee		
138.	Margin		
139.	Postage		
140.	Regulatory Fees		
141.	Shipping		

FIG. 79p

#	Name	Description	
142.	Special Concessions		
143.	Stock Exchange Tax		
144.	Transfer Tax		
145.	Transaction Tax		
146.	Value Added Tax		
147.	Withholding Tax		
148.	Mark-up		
149.	Consumption Tax		
150.	Accrued Capitalisation		
151.	Resulting from FX		
152.	Net Gain/Loss		
153.	Net Proceeds	Contains the amount arrived at by adjusting all the charges from the gross amount. This amount is used as the settlement amount.	
154.	Original Currency Net Proceeds	Indicates the Net Proceeds in the original currency.	
	Settlement Details		
155.	Version of the Settlement Details	The current message version of the settlement details.	In case of new settlement details submitted by the participant, it must be 1. In case of a delete and replace, the version number must be greater than a current active version of the Settlement Details.
156.	Delivery Date	Indicates 48 hour rule.	
157.	Exchange	Indicates the exchange where the trade has happened.	
158.	Trade Regulator		
159.	Settlement Location	For ICSDs, this is expressed as BIC and for Local Market settlement, this is expressed as ISO Country Code.	Must be a valid settlement location maintained by the TFM.
	Local Agent Details		

FIG. 79Q

No.	Field	Description	Notes
160.	Security Agent at Location	The Sub-Custodian is the security agent if the Global Custodian is submitting the details. The Clearing Broker/Dealer is the security agent if the Broker/Dealer is submitting the details.	
161.	Account at Security Agent	Identifies the safe custody account maintained by the Global Custodian or the Broker/Dealer with the Agent at Location.	
162.	Cash Agent at Location	Cash correspondent for settling in the specified currency.	
163.	Account at Cash Agent	Identifies the Cash account maintained by the Global Custodian or the Broker/Dealer with the Agent at Location.	
164.	Income Account	Identifies the Income Account at the Cash Agent.	This must be specified if the method of settlement is "DSP".
165.	Identification of the Clearing Organisation	Identifies the Clearing Organisation where the local agent maintains the account	This must be specified if the method of settlement is "DSP".
166.	Local agent Identification with the clearing organisation	Identifies the Local Agent identification with the clearing organisation	This must be specified if the method of settlement is "DSP".

Type of Settlement Transaction Indicators

No.	Field	Description	Notes
167.	Settle a Trade Flag	Indicates whether to settle the allocation or not	Valid Values are: ➤ Yes ➤ No.
168.	Withdrawal Indicator	Indicates whether any withdrawals is to be made from specified sub-accounts.	Valid Values are "Yes". ➤ Yes ➤ No. Valid Values are "No".
169.	Reporting Only Indicator	Indicates whether the trade is for reporting purposes only.	Valid Values are: ➤ Only for Reporting.
170.	External or Internal Account Transfer Indicator	Indicates whether the transaction is an external or an internal account transfer	Valid Values are: ➤ External Account Transfer. ➤ Internal Account Transfer.

FIG. 79R

171.	Turnaround Indicator	Indicates whether the transaction is a part of a turn around or not.	Valid Values are: ➤ Turnaround ➤ Not a Turnaround.
172.	Pair-off Indicator	Indicates whether the transaction is a part of a pair off or not.	Valid Values are: ➤ Pair-off ➤ Not a Pair-off.
173.	Placement Indicator	Indicates whether the transaction is a part of a placement or not.	Valid Values are: ➤ Part of a Placement ➤ Not a part of a Placement.
	Settlement Conditions		
174.	Unexposed Indicator	Indicates whether the delivery can be effected until cash is received or not.	Valid Values are: ➤ Exposed ➤ Unexposed.
175.	Special Delivery Indicator	Indicates whether the trade is to be settled with a special delivery or not.	Valid Values are: ➤ Special Delivery ➤ Not a Special Delivery.
176.	Free Clean Settlement Indicator	Indicates whether the trade will be settled free of payment, but a clean payment order will be sent.	Valid Values are: ➤ Free Clean Settlement ➤ Not a Free Clean Settlement.
177.	**Fungible Codes**		
178.	Guaranteed Delivery Indicator	Indicates whether the trade is to be settled with guaranteed settlement or not.	Valid Values are: ➤ Guaranteed Delivery.
179.	Physical Settlement Indicator	Indicates whether the securities are physically settled.	Valid Values are: ➤ Physical Delivery ➤ Book-entry Delivery.
180.	Partial Settlement Indicator	Indicates whether partial settlement is allowed or not.	Valid Values are: ➤ Partial Settlement is allowed ➤ Partial Settlement is not allowed.
181.	Split Currency	Indicates whether the settlement for the trade has to happen in two different currencies	

Input Messages
Legend for Reading the Table:

FIG. 79S

M – Mandatory Field

O – Optional Field

C – Conditional Field. The presence of the field is dependent on the values specified in other fields. Please refer to Section C.1 Field Elements for details of the conditional rules.

PM – Primary Matching Field (TFM will not pair the trade in case the primary matching fields do not match)

PTM – Primary Matching Field but matching based on the tolerance values

SM – Secondary Matching Field (TFM will pair the trade in case the secondary matching fields do not match. However down stream process will not be attempted unless the secondary matching fields match. Commissions at the level of the Block is a secondary matching field)

TMNP – Tolerance match for Net Proceeds

ꓱ – Bridge Match for Settlement Details

G – Fields generated by the TFM

CK – Fields only used to carry out control checks against the referenced Block Trade or Allocations.

FIG. 79T

S. NO	Field	NOE	BDN	ALLOC (IM OR BD)	NP IM	NP BD	SD GC	SD BD	MATCH
	Sender Details								
1.	Physical Sender Identification	M	M	M	M	M	M	M	
2.	Actual Sender Identification	O	O	O	O	O	O	O	
	Reference and Trade Identification Details								
3.	Physical Sender Identification of the Trade	O	O		O	O	O		
4.	Actual Sender Identification of the Trade	O	O	O	O	O	O	O	
5.	Participant Trade Reference #	M	M		M	M	M	M	
6.	Senders Message Reference #	M	M	M	M	M	M	M	
7.	Related Reference #	M	M	M	O	M	M	M	
8.	Preparation Date and Time	O	O	O	O	O	O	O	
9.	Version of Trade	O	O	O	O	O	O	O	
10.	External (common) Reference #	M	M	M	M	M	M	M	
11.	TFM Match Reference #	O	O						PTM
12.	Basket/Program/Portfolio Reference #	O	O						
13.	Fund to Fund Trade Link #	O	O						
14.	Function of Message	M	M						
15.	Trade Transaction Type	M	M	M	M	M	M	M	
16.	Processing Type	M	M						
	Party Details								
17.	Buy/Sell Indicator	M	M	CK	CK	CK	CK	CK	PM
18.	Buyer Identification	M	M	CK	CK	CK	CK	CK	PM
19.	Seller Identification	M	M	CK	CK	CK	CK	CK	PM
	Security Identification Details and Security Attributes								
20.	Type of Financial Instrument	M	M	CK	CK	CK	CK	CK	PM

FIG. 80A

S. NO	Field	NOE	BON	ALLOC (IM OR BD)	NP IM	NP BD	SD GC	SD BD	MATCH
21.	Numbering Agency Code	M	M						
22.	Security Identification Number	M	M	CK	CK	CK	CK	CK	PM
23.	Country of Issue of the Security	C	C	CK	CK	CK	CK	CK	PM
24.	Securities Short Name	C	C						PM
25.	Dated Date	O	O						
26.	Floating Rate Note Reset Date	O	O						
27.	Conversion Date	O	O						
28.	Yield to maturity	O	O						
29.	Number of Days Accrued	O	O						
30.	Method of Interest Computation	O	O						
31.	Odd Coupon Flag	O	O						
32.	Alternate Minimum Tax Flag	O	O						
33.	Convertible Flag	O	O						
34.	Variable Rate Flag	O	O						
35.	Special Coupon Indicator	O	O						
36.	Coupon Payment Frequency Indicator	O	O						
37.	Variable Rate Change Frequency	O	O						
38.	Form of Securities	O	O						
39.	Security Payment Status	O	O						
40.	Preference to Income	O	O						
41.	Restrictions	O	O						
42.	Reset Source	O	O						
43.	Rating Agency	O	O						
44.	Security Rating	O	O						
45.	Flat Default Status	O	O						
46.	Contract Multiplier	O	O						
47.	Pool Identifier	O	O						
48.	State of Pool Issuance	O	O						
	Additional Information for Fixed Income Instruments								
49.	Security Identification in Local Market	O	O						
50.	Currency of Issue	C	C						

FIG. 80B

S. NO	Field	NOE	BON	ALLOC (IM OR BD)	NP (IM)	NP (BD)	SD (GC)	SD (BD)	MATCH
51.	Original Par (Face) Value	C	C						PM
52.	Current Factor	C	C						
53.	Next Factor	C	C						
54.	Date of Next Factor	C	C						
55.	Issue Date	C	C						
56.	Maturity Date	C	C						
57.	Current Interest Rate	C	C						
58.	Next Interest Rate	C	C						
59.	Index	O	O						
60.	Coupon Frequency	C	C						
61.	First Coupon Date	C	C						
62.	Next Coupon Date	C	C						
	Trade Details								
63.	Block Quantity Traded (Executed)	M	M	CK	CK	CK			PM
64.	Original Block Quantity	O	O						
65.	Trade Currency	M	M						PTM
66.	Price	M	M	CK	CK	CK			PTM
67.	Type of Price	O	O						
68.	Price Precision	O	O						
69.	Block Gross Amount in Trade Currency	M	M						PTM
70.	Broker Commission in Trade Currency (Currency + Value)	O	O						SM
71.	Forex Rate	O	O						PTM
72.	Block Gross Amount in Settlement Currency	O	O						PTM
73.	Broker Commission in Settlement Currency	O	O						SM
74.	Trade Date	M	M						PM
75.	Trade Time	O	O						
76.	Time Zone of the Trade Time	O	O						
77.	Place of Trade	M	M						
78.	Trading Session ID	O	O						
79.	Settlement Date	M	M				CK	CK	PM
80.	Method of Settlement	M	M				CK	CK	PM

S. NO	Field	NOE	BON	ALLOC (IM OR BD)	NP IM	NP BD	SD GC	SD BD	MATCH
81.	Settlement Location	M							
82.	Capacity Indicator	O	C						
83.	Short Sale Indicator	O	O						
84.	Clean/Dirty Indicator	O	O						
85.	Due to Bill Broker Indicator	O	O						
86.	Cum Coupon Indicator	O	O						
87.	Cum Bonus Indicator	O	O						
88.	Cum Dividend Indicator	O	O						
89.	Special Cum Dividend Indicator	O	O						
90.	Cum Rights Indicator	O	O						
91.	Cum Warrants Indicator	O	O						
92.	Warrants Attached Indicator	O	O						
93.	Solicited Flag	O	O						
94.	Primary Market Indicator	O	O						
	Cancelled Trade Identification								
95.	Physical Sender Identification of the Cancelled Trade	O	O						
96.	Participant Trade Reference # of the Cancelled Trade	O	O						
	Disputed Trade Identification								
97.	Physical Sender Identification of the Disputed Trade	O	O						
98.	Participant Trade Reference # of the Disputed Trade	C	C						
99.	Sender to Receiver Free Flow Information	O	O						
	Additional particulars not part of the message.								
100.	Step Out Indicator	G	G						
101.	Step Out Trade Reference #	G	G						
102.	Step Out Trade Allocation Sequence #	G	G						
103.	Quantity allocated in Allocations message	M	M						
	Allocation details (repeated for each Allocation Sequence Number)								
104.	Allocation Sequence #			O	O	O	O	O	
105.	Deleted Allocation Sequence #			M	M	M	M	M	
106.	Version of the Allocation			O	M	M	M	M	
107.	Step In Broker								

FIG. 80D

S. NO	Field	NOE	BON	ALLOC (IM OR BD)	NP		SD		MATCH
					IM	BD	GC	BD	
108.	Allocated Quantity								
109.	Identification of the Client			M	CK	CK	CK	CK	
110.	Investment Manager Client Account #			M	CK	CK	CK	CK	
111.	Database of the Access Code			C	CK	CK	CK	CK	
112.	Access Code			C					
113.	GSTPA Account #			C					
114.	Currency to Buy or Currency to Sell			C	CK	CK	CK	CK	
115.	Global Custodian Identification			O					
116.	Global Custodian Client Account #			M					
117.	Commission Type			C			CK		
118.	Broker of Credit			M					
119.	Class of Account			C					
120.	Accounting Agent/Interested Party			O					
121.	Deadline for Accounting to Accounting Agent/Interested Party			O					
122.	Tax Lot Specification			O					
	Net Proceeds Details								
123.	Net Proceeds Version #				M	M	O	O	
124.	Value Date and Time				O	O	O		
125.	Gross Proceeds for the Allocation				M	M			
126.	Forex Rate				O	O			
127.	Broker Commission				O	O			
128.	Accrued Interest				C	C			
129.	Country/National/Federation Tax				O	O			
130.	Stamp Duty				O	O			
131.	Registration Charge				O	O			
132.	Other Charges				O	O			
133.	Charges and Fees				O	O			
134.	Local Broker's Commission				O	O			
135.	Issue Discount Allowance				O	O			
136.	Payment Levy Tax				O	O			
137.	Matching/Confirmation Fee				O	O			

FIG. 80E

S. NO	Field	NOE	BON	ALLOC (IM OR BD)	NP IM	NP BD	SD GC	SD BD	MATCH
138.	Margin								
139.	Postage				O	O			
140.	Regulatory Fees				O	O			
141.	Shipping				O	O			
142.	Special Concessions				O	O			
143.	Stock Exchange Tax				O	O			
144.	Transfer Tax				O	O			
145.	Transaction Tax				O	O			
146.	Value Added Tax				O	O			
147.	Withholding Tax				O	O			
148.	Mark-up				O	O			
149.	Consumption Tax				O	O			
150.	Accrued Capitalisation				O	O			
151.	Resulting from FX				O	O			
152.	Net Gain/Loss				O	O			
153.	Net Proceeds				O	O			
154.	Original Currency Net Proceeds				M	M			TMNP
	Settlement Details								
155.	Settlement Details Version #				O				
156.	Delivery Date						M	M	
157.	Exchange						O	O	
158.	Regulator						O	O	
159.	Settlement Location						M	M	BMSD
	Local Agent Details								
160.	Security Agent at Location						M	M	
161.	Account at Security Agent						M	M	
162.	Cash Agent at Location						M	M	
163.	Account at Cash Agent						C	C	
164.	Income Account						C	C	
165.	Identification of the Clearing Organisation						O	O	
166.	Local Agent Identification with the Clearing Organisation						O	O	

S. NO	Field	NOE	BON	ALLOC (1M OR BD)	NP		SD		MATCH
					IM	BD	GC	BD	
	Type of Settlement Transaction Indicators								
167.	Settle a Trade Flag								
168.	Withdrawal Indicator						O	O	
169.	Reporting only trade						O	O	
170.	External or Internal Account Transfer Indicator						O	O	
171.	Turnaround Indicator						O	O	
172.	Pair-off Indicator						O	O	
173.	Placement Indicator						O	O	
	Settlement Conditions								
174.	Unexposed Indicator						O		
175.	Special Delivery Indicator						O	O	
176.	Free Clean Settlement Indicator						O	O	
177.	Fungible Codes						O	O	
178.	Guaranteed Delivery Indicator						O	O	
179.	Physical Settlement Indicator						O	O	
180.	Partial Settlement Indicator						O	O	
181.	Split Currency						O		

FIG. 80C

Output Messages

Legend for Reading the Table:

M – Mandatory Field
O – Optional Field
C – Conditional Field. The presence of the field is dependent on the values specified in other fields. Please refer to Section 1.1 Field Elements for details of the conditional rules.
TFM – The sender identification of the TFM.
BM, BO, BC – "B" indicates both sides values for settlement details. "M", "O", "C" indicates mandatory, optionality and conditionality of the fields.
G – Fields generated by the TFM
CM – Fields sent only if the trade is matched

PM, PO, PC – "p" indicates either the prevailing side's net amount in case of Net Proceeds Match or the both sides net amounts in case of Net Proceeds match failure. "M", "O", "C" indicates mandatory, optionality and conditionality of the fields. Global Custodian will only get the prevailing sides Net Proceeds details. Accounting Agents will be reported based on the profile (either Investment Manager's values or Broker/Dealers values)
CK – Fields only used to carry out control checks against the referenced Block Trade or Allocations.

The following are the list of output messages with trade details that are sent by the TFM:

➤ Alleged NOE and BON to indicate to the counter party about the alleged trades
➤ Trade Match and Trade Pair notification (Trade Match + Pair) to indicate the matching of the trade or the pairing of the trade due to replace of trade details by one of the parties. The details will be similar to the NOE or BON and will contain the counter party's trade details.
➤ Allocation notifications to the Global Custodian (certain fields like settlement location etc., will be sent only if the trade has matched with the NOE)
➤ Pending Net Proceeds (NP Pend) in case the participant is operating in a conversational mode
➤ Net Proceeds match and match failure notification (NP Match) indicating the prevailing amount or the counterparts amount respectively
➤ Settlement Details match and match failure notification (SD Match)
➤ Settlement Release details (SD Release)
➤ Accounting Details (Acct)

S. NO	Field	ALLEGED		TRADE MATCH + PAIR	ALLOCATIONS		NP		SD		ACCT.
		NOE	BON		BD/IM	GC	Match	Pend	Match	Release	
	Sender Details										
1.	Physical Sender Identification	TFM	TFM	TFM	TFM	TFM	TFM	TFM	TFM	TFM	TFM
2.	Actual Recipient Identification	O	O	O	O	O	O	O	O	O	O
	Reference and Trade Identification Details										
3.	Physical Sender Identification of the Trade	O	O	O	O	O	O	O	O	O	O
4.	Actual Sender Identification of the Trade	M	M	M	M	M	M	M	M	M	M
5.	Participant Trade Reference #	M	M	M	M	M	M	M	M	M	M
6.	Senders Message Reference #	M	M	M	M	M	M	M	M	M	M
7.	Related Reference #	M	M	M	M	M	M	M	M	M	M
8.	Preparation Date and Time	M	M	M	M	M	M	M	M	M	M
9.	Version of Trade	M	O	O	M	O	M	M	M	M	O
10.	External (common) Reference #	O	O	O	M	CM	M		M	O	M
11.	TFM Match Reference #					CM					O
12.	Basket/Program/Portfolio Reference #	O	O	O		CM				O	O
13.	Fund to Fund Trade Link #	O	O	O						O	O

S. NO	Field	ALLEGED NOE	ALLEGED BON	TRADE MATCH + PAIR	ALLOCATIONS BD/IM	ALLOCATIONS GC	NP Match	SD Pend.	SD Match	SD Release	ACCT.
14.	Function of Message	M	M	M	M	M	M	M	M	M	M
15.	Trade Transaction Type	M	M	M	M	M	M	M	M	M	M
16.	Processing Type	M	M	M	M	M	M	M	M	M	M
	Party Details										
17.	Buy/Sell Indicator	M	M	M	M	M	M	M	M	M	M
18.	Buyer Identification	M	M	M	CK	M	CK	CK	CK	M	M
19.	Seller Identification	M	M	M	CK	M	CK	CK	CK	M	M
	Security Identification Details and Security Attributes										
20.	Type of Financial Instrument	M	M	M	M	M				M	M
21.	Numbering Agency Code	M	M	M	M	M				M	M
22.	Security Identification Number	M	M	M	CK	M	CK	CK	CK	M	M
23.	Country of Issue of the Security	M	M	M	CK	M	CK	CK	CK	M	M
24.	Securities Short Name	C	C	C	C	C				C	C
25.	Dated Date	U	U	U	U	U				U	U
26.	Floating Rate Note Reset Date	O	O	O	O	O				O	O
27.	Conversion Date	O	O	O	O	O				O	O
28.	Yield to maturity	O	O	O	O	O				O	O
29.	Number of Days Accrued	O	O	O	O	O				O	O
30.	Method of Interest Computation	O	O	O	O	O				O	O
31.	Odd Coupon Flag	O	O	O	O	O				O	O
32.	Alternate Minimum Tax Flag	O	O	O	O	O				O	O
33.	Convertible Flag	O	O	O	O	O				O	O
34.	Variable Rate Flag	O	O	O	O	O				O	O
35.	Special Coupon Indicator	O	O	O	O	O				O	O
36.	Coupon Payment Frequency Indicator	O	O	O	O	O				O	O
37.	Variable Rate Change Frequency	O	O	O	O	O				O	O
38.	Form of Securities	O	O	O	O	O				O	O
39.	Security Payment Status	O	O	O	O	O				O	O
40.	Preference to Income	O	O	O	O	O				O	O
41.	Restrictions	O	O	O	O	O				O	O
42.	Reset Source	O	O	O	O	O				O	O

S. NO	Field	ALLEGED NOE	ALLEGED BON	TRADE MATCH H + PAIR	ALLOCATIONS BD/IH	ALLOCATIONS GC	NP Match	NP Pend.	SD Match	SD Release	ACCT.
43.	Rating Agency										
44.	Security Rating	O	O	O		O				O	O
45.	Flat Default Status	O	O	O		O				O	O
46.	Contract Multiplier	O	O	O		O				O	O
47.	Pool Identifier	O	O	O		O				O	O
48.	State of Pool Issuance	O	O	O		O				O	O
	Additional Information for Fixed Income Instruments										
49.	Security Identification in Local Market	O	O	O		O				C	O
50.	Currency of Issue	U	U	U		U				C	U
51.	Original Par (Face) Value	U	U	U		U				C	U
52.	Current Factor	U	U	U		U				C	U
53.	Next Factor	U	U	U		U				C	U
54.	Date of Next Factor	U	U	U		U				C	U
55.	Issue Date	U	U	U		U				C	U
56.	Maturity Date	U	U	U		U				C	U
57.	Current Interest Rate	U	U	U		U				C	U
58.	Next Interest Rate	U	U	U		U				C	U
59.	Index	O	O	O		O				C	U
60.	Coupon Frequency	U	U	U		U				C	U
61.	First Coupon Date	U	U	U		U				C	U
62.	Next Coupon Date	U	U	U		U				C	U
	Trade Details										
63.	Block Quantity Traded (Executed)	M	M	M	CK		CK			M	M
64.	Original Block Quantity	O	O	O				CK		O	O
65.	Trade Currency	M	M	M	CK	M	CK			M	M
66.	Price	M	M	M	CK	M	CK	CK	CK	M	M
67.	Type of Price	O	O	O	CK	O		CK		O	O
68.	Price Precision	O	O	O		O				O	O
69.	Block Gross Amount in Trade Currency	M	M	M		O				O	O
70.	Broker Commission in Trade Currency (Currency + Value)	O	O	O		O				O	O
71.	Forex Rate	O	O	O							

S. NO	Field	NOE	BON	TRADE MATCH + PAIR	BD/IM	GC	NP Match	Pend.	SD Match	Release	ACCT.
72.	Block Gross Amount in Settlement Currency	C	C	C							
73.	Broker Commission in Settlement Currency	C	C	C							
74.	Trade Date	M	M	M		M				M	M
75.	Trade Time	O	O	O		O				O	O
76.	Time Zone of the Trade Time	O	O	O		O				O	O
77.	Place of Trade	M	M	M		M				M	M
78.	Trading Session ID	O	O	O		O				O	O
79.	Settlement Date	M	M	M		M	CM			M	M
80.	Method of Settlement	M	M	M		CM				M	M
81.	Settlement Location	M	U	U		CM			CK	M	M
82.	Capacity Indicator	M	O	O		O				O	O
83.	Short Sale Indicator	O	O	O		O				O	O
84.	Clean/Dirty Indicator	O	O	O		O				O	O
85.	Due to Bill Broker Indicator	O	O	O		O				O	O
86.	Cum Bonus Indicator	O	O	O		O				O	O
87.	Cum Dividend Indicator	O	O	O		O				O	O
88.	Special Cum Dividend Indicator	O	O	O		O				O	O
89.	Cum Rights Indicator	O	O	O		O				O	O
90.	Cum Warrants Indicator	O	O	O		O				O	O
91.	Warrants Attached Indicator	O	O	O		O				O	O
92.	Solicited Flag	O	O	O		O				O	O
93.	Primary Market Indicator	O	O	O		O				O	O
	Cancelled Trade Identification										
94.	Physical Sender Identification of the Cancelled Trade	O	O	O		O				O	O
95.	Participant Trade Reference # of the Cancelled Trade	O	O	O		O				O	O
	Disputed Trade Identification										
96.	Physical Sender Identification of the Disputed Trade	O	O	O							
97.	Participant Trade reference # of the Disputed Trade	U	U								
98.	Sender to Receiver Free Flow Information	O	O	O							
	Additional particulars not part of the message.										
99.	Step Out Indicator	G	G	O		O		O	O		O

FIG. 81D

FIG. 81E

S. NO.	Field	ALLEGED		TRADE MATCH + PAIR	ALLOCATIONS		NP		SD		ACC T.
		NOE	BON		BD/ IM	GC	Mat ch	Pen d.	Mat ch	Rel eas e	
100.	Physical Sender of Step-Out Trade	G	G								
101.	Step Out Trade Reference #	G	G								
102.	Step Out Trade Allocation Sequence #	G	G								
103.	Quantity allocated in Allocations message										
	Allocation details (repeated for each Allocation Sequence Number)										
104.	Allocation Sequence #										
105.	Deleted Allocation Sequence #				M	M	M	M	M	M	M
106.	Version of the Allocation				O	O				O	O
107.	Step in Broker				M	M	M	M	M	M	M
108.	Allocated Quantity				O	O					
109.	Identification of the Client				M	M	CK	CK	CK	M	M
110.	Investment Manager Client Account #				M	M	CK	CK	CK	M	M
111.	Database of the Access Code				C	C	CK	CK	CK	C	C
112.	Access Code				C	C					
113.	GSTPA Account #				C	C					
114.	Currency to Buy or Currency to Sell				C	O	CK	CK	CK	C	C
115.	Global Custodian Identification					O				O	O
116.	Global Custodian Client Account #				M	M			CK	M	M
117.	Commission Type				C	C			CK	C	C
118.	Broker of Credit				M	M				M	M
119.	Class of Account				C	C				C	C
120.	Accounting Agent/Interested Party										O
121.	Deadline for Accounting to Accounting Agent/Interested Party										O
122.	Tax Lot Specification				O	O				O	O
	Net Proceeds Details										
123.	Net Proceeds Version #										
124.	Value Date and Time						M	M		M	M
125.	Gross Proceeds for the Allocation						M	M		M	M
126.	Forex Rate						PM	M		PM	PM
127.	Broker Commission						PO	O		PO	PO

S. NO	Field	ALLEGED NOE	BON	TRADE MATCH + PAIR	ALLOCATIONS BD/IM	GC	NP Match	NP Pen d.	SD Match	SD Releas e	ACC T.
128.	Accrued Interest						PC	C		PC	PC
129.	Country/National/Federation Tax						PO	O		PO	PO
130.	Stamp Duty						PO	O		PO	PO
131.	Registration Charge						PO	O		PO	PO
132.	Other Charges						PO	O		PO	PO
133.	Charges and Fees						PO	O		PO	PO
134.	Local Broker's Commission						PO	O		PO	PO
135.	Issue Discount Allowance						PO	O		PO	PO
136.	Payment Levy Tax						PO	O		PO	PO
137.	Matching/Confirmation Fee						PO	O		PO	PO
138.	Margin						PO	O		PO	PO
139.	Postage						PO	O		PO	PO
140.	Regulatory Fees						PO	O		PO	PO
141.	Shipping						PO	O		PO	PO
142.	Special Concessions						PO	O		PO	PO
143.	Stock Exchange Tax						PO	O		PO	PO
144.	Transfer Tax						PO	O		PO	PO
145.	Transaction Tax						PO	O		PO	PO
146.	Value Added Tax						PO	O		PO	PO
147.	Withholding Tax						PO	O		PO	PO
148.	Mark-up						PO	O		PO	PO
149.	Consumption Tax						PO	O		PO	PO
150.	Accrued Capitalisation						PO	O		PO	PO
151.	Resulting from FX						PO	O		PO	PO
152.	Net Gain/Loss						PO	O		PO	PO
153.	Net Proceeds						PM	M		PM	PM
154.	Original Currency Net Proceeds						PO	O		PO	PO
155.	Settlement Details Version #								M	M	
156.	Delivery Date								O	O	
157.	Exchange								O	O	

Settlement Details

S. NO	Field	ALLEGED		TRADE MATCH H+PAIR	ALLOCATIONS		NP		SD			ACC T.
		NOE	BON		BD/IN	GC	Mat ch	Pen d.	Mat ch	Pen d.	Rel eas e	
158.	Regulator											
159.	Settlement Location								O		O	
	Local Agent Details											
160.	Security Agent at Location								BM		BM	
161.	Account at Security Agent								BM		BM	
162.	Cash Agent at Location								BM		BM	
163.	Account at Cash Agent								BC		BC	
164.	Income Account								BC		BC	
165.	Identification of the Clearing Organisation								BO		BO	
166.	Local Agent Identification with the Clearing Organisation								BO		BO	
	Type of Settlement Transaction Indicators											
167.	Settle a Trade Flag								BO		BO	
168.	Withdrawal Indicator								BO		BO	
169.	Reporting only Trade								BO		BO	
170.	External or Internal Account Transfer Indicator								BO		BO	
171.	Turnaround Indicator								BO		BO	
172.	Pair-off Indicator								BO		BO	
173.	Placement Indicator								BO		BO	
	Settlement Conditions											
174.	Unexposed Indicator											
175.	Special Delivery Indicator								BO		BO	
176.	Free Clean Settlement Indicator								BO		BO	
177.	Fungible Codes								BO		BO	
178.	Guaranteed Delivery Indicator								BO		BO	
179.	Physical Settlement Indicator								BO		BO	
180.	Partial Settlement Indicator								BO		BO	
181.	Split Currency								BO		BO	
182.	Net Proceeds Difference (in case of one side is prevailing)						O		O		O	O
183.	Bridge Agent at location											

Output Information Added by the TFM which are not part of any input message

Bridge Link Details for Bridge Settlement Match

S. NO	Field	ALLEGED NOE	ALLEGED BON	TRADE MATCH H+ PAIR	ALLOCATIONS BD/ IM	ALLOCATIONS GC	NP Match	NP Pend.	SD Match	SD Release	ACCT.
184.	Security Account at Bridge Agent										
185.	Cash Account at Bridge Agent										
186.	Bridge Agent Identification at clearing organisation										
187.	Settlement location										
188.	Code to be used for Bridge Link transaction at the ICSDs										
189.	Agent for handling the Bridge link								C	C	
190.	Identification of the Bridge at Agent								C	C	
	Reference and Status Details										
191.	Physical Sender Identification of the Counter Trade			O	O	O	O	O	O	O	
192.	Actual Sender Identification of the Counter Trade			M	M	CM	M	M	M	M	
193.	Participant Trade Reference # of the Counter Trade			M	M	CM	M	M	M	M	
194.	Status of the Trade	M	M	M	M	M	M	M	M	M	M
195.	Allocation Sub-status of the Trade										M
196.	Status of the Allocations				M	M	M	M	M	M	M
197.	Status of the Net Proceeds						M	M	M	M	M
198.	Status of the Settlement Details						M	M	M	M	M
	Error and Warning Codes (Repeated for each error or warning). To indicate any errors in case of pairing or match failure and warning in case non matching fields do not have the same value										
199.	Error Code or Warning Code			O	M	M	O	M	O	M	
200.	Error or Warning Field Name			O	M	M	O	M	O	M	
201.	Party's Value			O	M	M	O	M	O	M	
202.	Counter Party's Value			O	M	M	O	M	O	M	
	Deadlines (Repeated for each deadline Type). There are four types of deadlines namely NOE-BON Match, Allocations Completion, Net Proceeds Match and Settlement Details Match.										
203.	Deadline Type	M	M	M	M	M	M	M	M		
204.	Deadline Time	M	M	M	M	M	M	M	M		
205.	Deadline Warning (Alert Time)	M	M	M	M	M	M	M	M	M	M
206.	Deadline Missed Indicator	M	M	M	M	M	M	M	M	M	M

FIG. 81ll

C.3.2 Messages sent with only reference and status details

These messages are used to send out successful acceptance of messages or a rejection of the messages due to validation failures. These messages are also used to send any alert notifications to participants to inform them about any deadlines that are going to expire and status changes to trades. Pending processing, alert for pending processing and discard message will be sent as an Alert message with appropriate status in Status of the message field. Deadline change notification will be sent as success messages with the revised deadlines.

The following table groups the field elements by input messages and describes which fields are needed in which messages, the mandatory or optionality of the fields in the message, whether the field is matched or not etc.. In addition to these fields, there will also control check fields to ensure that participants refer to the right details of the trade and Allocations. These control check fields are not added in the table.

Legend for Reading the Table:

M – Mandatory Field
O – Optional Field
C – Conditional Field. The presence of the field is dependent on the values specified in other fields. Please refer to Section 1.1 Field Elements for details of the conditional rules.
TFM – The sender identification of the TFM.
CA – Presence of field is conditional whether the message pertains to Allocation
CNP – Presence of field is conditional whether the message pertains to Net Proceeds

CSD – Presence of field is conditional whether the message pertains to Settlement Details
CMSG – Presence of the field is conditional whether the message pertains to an acceptance or a success or pending processing or a discard message.
OW – Only for warnings

FIG. 811

FIG. 82A

S. NO	Field	SUCCESS + STATUS CHANGES	ERROR	ALERT
	Sender Details			
1.	Physical Sender Identification			
2.	Actual Recipient Identification	TFM	TFM	TFM
	Trade and Allocation Identification Details			
3.	Physical Sender Identification of the Trade	O	O	O
4.	Actual Sender Identification of the Trade	O	O	O
5.	Participant Trade Reference #	M	M	M
6.	Senders Message Reference #	M	M	M
7.	Related Reference #	M	M	M
8.	TFM Match Reference #	M	M	M
9.	Preparation Date and Time	CM	CM	CM
10.	Version of Trade	M	M	M
11.	Allocation Sequence #	M	M	M
12.	Version of the Allocations	CA	CA	CA
13.	Version of the Net Proceeds	CA	CA	CA
14.	Version of the Settlement Details	CNP	CNP	CNP
15.	Function of Message	CSD	CSD	CSD
	Party Details	M	M	M
16.	Buy/Sell Indicator			
17.	Buyer Identification	M	M	M
18.	Seller Identification	M	M	M
	Security Identification			
19.	Numbering Agency Code	M	M	M
20.	Security Identification Number	M	M	M
	Security Identification in Primary Numbering Agency Code			
21.	Primary Numbering Agency code	C	C	C
22.	Security Identification Number in Primary Numbering Agency Code	C	C	C
	Trade Details			
23.	Block quantity Traded	M	M	M
24.	Trade Currency	M	M	M
25.	Trade Price	M	M	M
26.	Settlement Currency	M	M	M
27.	Settlement date	M	M	M
28.	Method of settlement	M	M	M

S. NO	Field	SUCCESS + STATUS CHANGES	ERROR	ALERT
	Allocation Details			
29.	Allocated quantity			
30.	Identification of the client	CA	CA	CA
31.	Investment Manager Client Account #	CA	CA	CA
32.	GSTPA Account #	CA	CA	CA
33.	Global Custodian Client Account #	CA	CA	CA
	Counter Party Trade Reference			
34.	Physical Sender Identification of the Counter Trade	O	O	O
35.	Actual Sender Identification of the Counter Trade	CM	CM	CM
36.	Participant Trade Reference # of the Counter Trade	CM	CM	CM
	Status Details of the trade			
37.	Status of the Trade	M	M	M
38.	Allocation sub-status of the Trade	CA	CA	CA
39.	Status of the Allocations	CA	CA	CA
40.	Status of the Net Proceeds	CNP	CNP	CNP
41.	Status of the Settlement Details	CSD	CSD	CSD
42.	Status of the Message	CMSG	CMSG	
	Additional details for Step Out Trade			
43.	Step Out Indicator	C	C	C
44.	Physical Sender of the Step Out Trade	C	C	C
45.	Step Out Trade Reference #	C	C	C
46.	Step Out Trade Allocation Sequence #	C	C	C

FIG. 82B

ERROR AND WARNING CODES (REPEATED FOR EACH ERROR OR WARNING). TO INDICATE ANY ERRORS IN CASE OF PAIRING OR MATCH FAILURE AND WARNING IN CASE NON MATCHING FIELDS DO NOT HAVE THE SAME VALUE		
47.	Error Code or Warning Code	OW	M
48.	Error or Warning Field Name	OW	M
49.	Party's Value	OW	M
Deadlines (Repeated for each deadline Type). There are four types of deadlines namely NOE-BON Match, Allocations Completion, Net Proceeds Match and Settlement Details Match.		
50.	Deadline Type	M	M
51.	Deadline Time	M	M
52.	Deadline Warning (Alert Time)	M	M
53.	Deadline Missed Indicator	M	M

FIG. 82C

Logical Message Name	Physical Message Name	Function of the Message
New NOE	NOE	New
NOE Replace	NOE	Replace
NOE Cancel	NOE	Cancel
NOE Revoke Cancel	NOE	Revoke
BON DK	BON	Reject
BON Dispute	BON	Dispute
BON Revoke DK	BON	Revoke
New BON	BON	New
BON Replace	BON	Replace

FIG. 83A

FIG. 83B

BON Cancel	BON	Cancel
DON Revoke Cancel	BON	Revoke
NOE DK	BON	Reject
NOE Dispute	BON	Dispute
NOE Revoke DK	BON	Revoke

C.4.1.2 Output Messages

Logical Message Name	Physical Message Name	Function of the Message	Status
Successful Acceptance of New NOE	Success	New	Accepted
Successful Acceptance of NOE Replace	Success	Replace	Accepted
Successful Acceptance of NOE Cancel	Success	Cancel	Cancelled or Cancellation Requested
Successful Acceptance of NOE Revoke Cancel	Success	Revoke	Matched or Pairreq
Successful Acceptance of BON DK	Success	Reject	Accepted
Successful Acceptance of BON Dispute	Success	Dispute	Accepted
Successful Acceptance of BON Revoke DK	Success	Revoke	Accepted
Successful Acceptance of New BON	Success	New	Accepted
Successful Acceptance of BON Replace	Success	Replace	Accepted
Successful Acceptance of BON Cancel	Success	Cancel	Cancelled or Cancellation Requested
Successful Acceptance of BON Revoke Cancel	Success	Revoke	Matched or Paired
Successful Acceptance of NOE DK	Success	Reject	Accepted
Successful Acceptance of NOE Dispute	Success	Dispute	Accepted
Successful Acceptance of NOE Revoke DK	Success	Revoke	Accepted
Acceptance Error for New NOE	Error	New	Accepted
Acceptance Error for NOE Replace	Error	Replace	In Error
Acceptance Error for NOE Cancel	Error	Cancel	In Error
Acceptance Error for NOE Revoke Cancel	Error	Revoke	In Error
Acceptance Error for BON DK	Error	Reject	In Error
Acceptance Error for BON Dispute	Error	Dispute	In Error
Acceptance Error for BON Revoke DK	Error	Revoke	In Error
Acceptance Error for New BON	Error	New	In Error

FIG. 84

FIG. 85

Logical Message Name	Physical Message Name	Function of the Message
New Allocations	Alloc. IM or BD	New
Replace Allocations	Alloc. IM	Replace
Replace Incomplete Allocations	Alloc. BD	Replace
Delete Allocations	Alloc. IM or BD	Delete
Delete Incomplete Allocations	Alloc. BD	Delete
Enriched Allocations	Alloc. IM	New
Replace Enriched Allocations	Alloc. IM	Replace

C.4.2.2 Output Messages

FIG. 86A

Logical Message Name	Physical Message Name	Function of the Message	Status
Successful Acceptance of New Incomplete Allocation	Success	New	Accepted
Successful Acceptance of Replace of Incomplete Allocation	Success	Replace	Accepted
Successful Acceptance of New Allocation	Success	New	Accepted
Successful Acceptance of Replace of Allocation	Success	Replace	Accepted
Successful Acceptance of Delete of Allocation	Success	Delete	Accepted
Successful Acceptance of New Enriched Allocation	Success	New	Deleted
Successful Acceptance of Replace of Enriched Allocation	Success	Replace	Accepted
Acceptance Error for New Incomplete Allocation	Error		Accepted
Acceptance Error for Replace of Incomplete Allocation	Error	New	In Error
Acceptance Error for Delete of Incomplete Allocation	Error	Replace	In Error
Acceptance Error for New Allocation	Error	Delete	In Error
Acceptance Error for Replace of Allocation	Error	New	In Error
Acceptance Error for Delete of Allocation	Error	Replace	In Error
Acceptance Error for New Enriched Allocation	Error	Delete	In Error
		New	In Error

Logical Message Name	Physical Message Name	Function of the Message	Status
Acceptance Error for Replace of Enriched Allocation	Error	Replace	In Error
Pending Processing for New Allocation	Alert	New	Pending Processing
Pending Processing for Replace of Allocation	Alert	Replace	Pending Processing
Pending Processing for Delete of Allocation	Alert	Delete	Pending Processing
Alert for pending New Allocation	Alert	New	Discard Warning
Alert for pending Replace of Allocation	Alert	Replace	Discard Warning
Alert for pending Delete of Allocation	Alert	Delete	Discard Warning
Discard for pending New Allocation	Alert	New	Discarded
Discard for Pending Replace of Allocation	Alert	Replace	Discarded
Discard for Pending Delete of Allocation	Alert	Delete	Discarded
Successful Acceptance of pending New Allocation	Success	New	Accepted
Successful Acceptance of pending Replace of Allocation	Success	Replace	Accepted
Successful Acceptance of pending Delete of Allocation	Success	Delete	Deleted
Acceptance Error for pending New Allocation	Error	New	In Error
Acceptance Error for Pending Replace of Allocation	Error	Replace	In Error
Acceptance Error for Pending Delete of Allocation	Error	Delete	In Error
Notification of New Enriched Allocation	Allocations BD / Allocations GC	New	Accepted
Notification of Replace of Enriched Allocation	Allocations BD / Allocations GC	Replace	Accepted
Notification of New Allocation	Allocations BD / Allocations GC	New	Accepted
Notification of New Incomplete Allocation	Allocations IM	New	Accepted
Notification of Replace of Allocation	Allocations BD / Allocations GC	Replace	Accepted
Notification of Replace of Incomplete Allocation	Allocations IM / Allocations GC	Replace	Accepted
Notification of Delete of Allocation	Allocations BD or IM / Allocations GC	Delete	Deleted
Notification of Delete of Incomplete Allocation	Allocations IM	Delete	Deleted
Notification of Time Expiry for Allocation Completion	Alert		Current Status of the Allocations

Net Proceeds

FIG. 86B

Input Messages

FIG. 87

Logical Message Name	Physical Message Name	Function of the Message
New Net Proceeds	NP IM or BD	New
Replace Net Proceeds	NP IM or BD	Replace
Delete Net Proceeds	NP IM or BD	Delete

Output Messages

FIG. 88A

Logical Message Name	Physical Message Name	Function of the Message	Status
Successful Acceptance of New Net Proceeds	Success	New	Accepted
Successful Acceptance for Replace of Net Proceeds	Success	Replace	Accepted
Successful Acceptance for Delete of Net Proceeds	Success	Delete	Deleted
Acceptance Error for New Net Proceeds	Error	New	In Error
Acceptance Error for Replace of Net Proceeds	Error	Replace	In Error
Acceptance Error for Delete of Net Proceeds	Error	Delete	In Error
Pending Processing for New Net Proceeds	Alert	New	Pending Processing
Pending Processing for Replace of Net Proceeds	Alert	Replace	Pending Processing
Pending Processing for Delete of Net Proceeds	Alert	Delete	Pending Processing
Alert for pending New Net Proceeds	Alert	New	Discard Warning
Alert for pending Replace of Net Proceeds	Alert	Replace	Discard Warning
Alert for pending Delete of Net Proceeds	Alert	Delete	Discard Warning
Discard of pending New Net Proceeds	Alert	New	Discarded
Discard of pending Replace of Net Proceeds	Alert	Replace	Discarded
Discard of pending Delete of Net Proceeds	Alert	Delete	Discarded
Successful Acceptance of pending New Net Proceeds	Success	New	Accepted
Successful Acceptance for pending Replace of Net Proceeds	Success	Replace	Accepted
Successful Acceptance for pending Delete of Net Proceeds	Success	Delete	Deleted
Acceptance Error for Pending New Net Proceeds	Error	New	In Error
Acceptance Error for Replace of pending Net Proceeds	Error	Replace	In Error

Logical Message Name	Physical Message Name	Function of the Message	Status
Acceptance Error for Delete of pending Net Proceeds	Error	Delete	In Error
Notification of New Net Proceeds	NP Pend.	New	Unmatched
Notification of Replace of Net Proceeds	NP Pend.	Replace	Unmatched
Notification of Delete of Net Proceeds	NP Pend.	Delete	Deleted
Notification of Net Proceeds Match	NP Match		Matched
Notification of Net Proceeds Match Fail	NP Match		Match Fail
Notification of Paired Net Proceeds	NP Match		Paired
Notification of Time Expiry for Net Proceeds Match Deadline	Alert		Current Status of Allocations
Notification of Net Proceeds Deadline	Success		Current Status of Allocations

FIG. 88B

Output Messages

Logical Message Name	Physical Message Name	Function of the Message	Status
Notification of Time Expiry for Accounting Deadline	Alert		Current Status of Allocations
Soft Report of Accounting Information	Acct.	New	
Confirmed Report of Accounting Information	Acct.	New	
Replace of Soft Report on Accounting Information	Acct.	Replace	
Replace of Confirmed Report on Accounting Information	Acct.	Replace	
Delete of Soft Report on Accounting Information	Acct.	Delete	
Delete of Confirmed Report on Accounting Information	Acct.	Delete	

FIG. 89

Input Messages

Logical Message Name	Physical Message Name	Function of the Message
New Settlement Details	SD GC or BD	New
Replace Settlement Details	SD IM or BD	Replace
Delete Settlement Details	SD IM or BD	Delete

FIG. 90

Output Messages

| Logical Message Name	Physical Message Name	Function of the Message	Status
Successful Acceptance of New Settlement Details	Success	New	Accepted
Successful Acceptance for Replace of Settlement Details	Success	Replace	Accepted
Successful Acceptance for Delete of Settlement Details	Success	Delete	Deleted
Acceptance Error for New Settlement Details	Error	New	In Error
Acceptance Error for Replace of Settlement Details	Error	Replace	In Error
Acceptance Error for Delete of Settlement Details	Error	Delete	In Error
Pending Processing for New Settlement Details	Alert	New	Pending Processing
Pending Processing for Replace of Settlement Details	Alert	Replace	Pending Processing
Pending Processing for Delete of Settlement Details	Alert	Delete	Pending Processing
Alert for pending New Settlement Details	Alert	New	Discard Warning
Alert for pending Replace of Settlement Details	Alert	Replace	Discard Warning
Alert for pending Delete of Settlement Details	Alert	Delete	Discard Warning
Discard of pending New Settlement Details	Alert	New	Discarded
Discard of pending Replace of Settlement Details	Alert	Replace	Discarded
Discard of pending Delete of Settlement Details	Alert	Delete	Discarded
Successful Acceptance of pending New Settlement	Success	New	Accepted

FIG. 91A

Logical Message Name	Physical Message Name	Function of the Message	Status
Details			
Successful Acceptance for pending Replace of Settlement Details	Success	Replace	Accepted
Successful Acceptance for pending Delete of Settlement Details	Success	Delete	Deleted
Acceptance Error for Pending New Settlement Details	Error	New	In Error
Acceptance Error for Replace of Pending Settlement Details	Error	Replace	In Error
Acceptance Error for Delete of pending Settlement Details	Error	Delete	In Error
Notification of Settlement Details Match	SD Match		Channel Compatible
Notification of Settlement Details Match Fail	SD Match		Channel Incompatible
Notification of Paired Settlement Details	SD Match		SD Paired
Notification of Settlement Details Deadline	Success		Current Status of the Allocations
Notification of Time Expiry for Settlement Details Match	Alert		Current Status of the Allocations
Notification of Settlement Release Details	SD Release	New	
Notification of Replace of Settlement Release Details	SD Release	Replace	
Notification of Delete of Settlement Details	Status	Delete	SD Deleted

FIG. 91B

THE FOLLOWING DIAGRAM EXPLAINS THE HANDLING
OF A FUND-TO-FUND TRADE
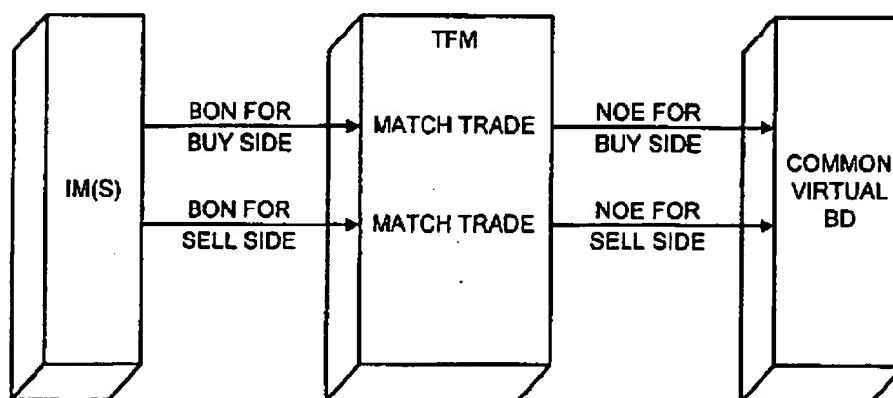
BOTH BUY AND SELL SIDE OF THE FUND TO FUND TRADE WILL HAVE A
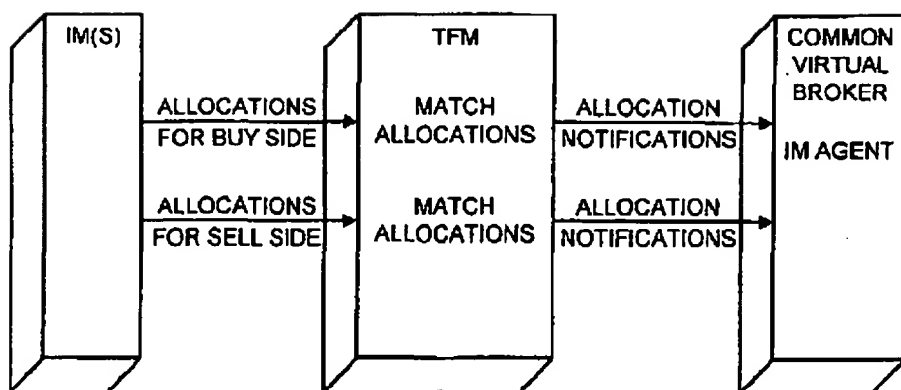COMMON LINK NUMBER LINKING BOTH SIDES OF THE TRADE

FIG. 92

FIG. 93

INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7   G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7   G07F   G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	EP 0 411 748 A (REUTERS LTD) 6 February 1991 (1991-02-06) page 5, line 30 –page 7, line 11; figures 1,2	1-74
X	WO 96 05563 A (REUTERS LTD) 22 February 1996 (1996-02-22) page 7, paragraph 2 –page 8, paragraph 1	1-74
X	WO 01 08072 A (RATNAVALE SANJE ;RYBAK MARIUSZ S (CA); FIRMBUY INC (US)) 1 February 2001 (2001-02-01) page 6, line 33 –page 11, line 36; figure 1	1-74

☐ Further documents are listed in the continuation of box C.   ☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
18 June 2002	28/06/2002

| Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl Fax: (+31–70) 340–3016 | Authorized officer Beatty, J |

Form PCT/ISA/210 (second sheet) (July 1992)

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